The Envirograf® brand was established in 1983 and it quickly evolved to become a leading force in fire containment technology. Its reputation as innovator and developer of fire prevention products is widely recognised, and its commitment to product research and development is second to none.

Envirograf® products carry the hallmark of excellence, reflecting the high standards that prevail in its laboratory, test rig, and manufacturing plant. Envirograf® products have rigorous quality control which, at all stages, ensures products remain at the leading edge of fire containment technology. This quality has earned the company and its products a high reputation.

Today, no company provides a more comprehensive range of reliable fire prevention products than the excellent Envirograf® range.
PRODUCT SELECTION
When it comes to fire protection, every risk must be considered to ensure that loss of life and loss of property are kept to a minimum.

While many people are aware of the importance of fire barriers in preventing or delaying the spread of fire, they do not always consider the effects of breaching the fire barrier, perhaps to allow electrical wires or other services to pass through. That is why a range of Envirograf® intumescent products has been designed, to safeguard the integrity of fire barriers, whether they are ceilings, floors, roofs, or walls.

Other products in the Envirograf® range are designed to protect a structure or item so that it can maintain its structural performance in a fire (e.g. load-bearing steelwork or fire doors). Choosing the correct product is essential. Seals must offer the same level of fire protection as the fire barrier they are to seal. For example, a ceiling with a fire protection rating of 60 minutes needs a seal with a rating of 60 minutes to maintain its integrity. When it comes to protecting a structural item in a building, it is vital to find out its protection rating and ensure that it maintains the load-bearing capacity in a fire.

FIRE RESISTANCE COATINGS STANDARDS
There are two relevant British Standards categories:
CLASS 0 – this is the best result of the combination of tests to BS476 Parts 6 and 7
CLASS 1 – this is the best result of a BS476 Part 7 test

These test standards are BS476 Part 6 (fire propagation) and BS476 Part 7 (surface spread of flame – this evaluates the likely rate of flame spread across the surface of a material).

However, the British Standards tests will be superseded by the new European Standard EN13501 Parts EN13823 (2002) single burn test (SBI) and EN11925-2 (2002) ignitability.

Relevant Envirograf® products have been tested to the new standard with the resulting excellent classification A1-B/S1/d0 (the S1 indicates minimal smoke emission, on a scale of S1 to S9, where S9 is the highest smoke emission).

Coatings only need to be tested on particle board – 12mm thick for walls and 18mm thick for ceilings and floors. The particle board is accepted in place of all types of wood board, but Envirograf® products have been tested on MDF board to the same European Standard, again with the resulting excellent classification A1-B/S1/d0.

This test information will be indicated on Data Sheets. These should be consulted during the specification process, or you can contact our technical department. If you have any questions during the specification process, including requirements for test data, contact the technical department.

NB: for applications where there may be some need for clarification on the suitability of the product, an independent assessment derived from test certificate(s) may be necessary, provided that it is from an independent fire consultant. Contact the technical department.

LEGISLATION
In all cases, building regulations and approved documents (as well as building officers, local fire authorities, and health and safety executives) should be appropriately consulted.

TERMS OF BUSINESS
Envirograf® products are only sold through approved distributors. For terms of business, please contact Intumescent Systems Ltd or your nearest distributor (details on back cover).

HOW TO ORDER
Once you have specified the product or products that you require, place your order with your nearest distributor, who will ensure that the product specified is correct for the application. They will then organise the delivery of the goods to the desired location.
INTUMESCENT FIRE AND SMOKE STOP PILLOWS

DESCRIPTION
A true intumescent pillow that can be supplied in two types. Each pillow is made from a hard-wearing fireproof glass cloth, filled with a fireproof sponge and intumescent. Type P/S is a soft pliable pillow that enables awkward areas to be filled, e.g. around cables, pipes and services, etc. Type P is a much more solid pillow, which is still pliable and flexible, enabling it to fill around services, but it can be fitted like a brick. 20 standard sizes plus made-to-order.

USE
Pillows are used for packing into gaps around pipes, cables, and over cable trays. They can be fitted to any size of opening, and give permanent or temporary fire protection and smoke sealing. Suitable for computer/clean/sterile areas. Can be used for overnight protection where work is in progress. To ensure pillows are not lost, they can be fitted with a tag and loop and wired together for security – they can be taken out and retained for re-insertion.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving 181 minutes integrity (compressible type 240 minutes). Tested at VNE to European Standard EN1363-1 (2000), achieving 2 hours fire protection.

ORDERING REFERENCES:
Ref Size Ref Size
P1 40 x 150 x 150mm P5 80 x 127 x 250mm
P2 40 x 225 x 225mm P6 80 x 300 x 300mm
P3 40 x 300 x 300mm P7 80 x 225 x 225mm
P4 40 x 127 x 250mm 20 sizes in price list plus special orders

INTUMESCENT FIRE-STOP BLOCKS

DESCRIPTION
A non-inflammable, compressible, foil-clad mineral fibre block with intumescent properties, 1200mm long. Designed to form a fire and smoke barrier and easily cut to size with a sharp knife. The blocks have self-adhesive tape for joining together. Available in the standard sizes shown below. Other sizes can be made to order.

USE
For use in walls or floors, and can be easily removed for the maintenance of services. Ideal as a fire break under suspended computer floors, or between screen walling and concrete floors. They can be used with Envirograf® wraps and pipe collars for PVC/copper/steel pipes.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving an integrity of 138 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
Ref Depth x Width Ref Depth x Width
IB1 50mm x 150mm IB2 100mm x 150mm
IB1A 50mm x 100mm IB2A 100mm x 100mm
IB1B 50mm x 50mm IB2B 100mm x 50mm
NB: IB1=1hr IB2=2hr rating. Other sizes can be made to order
**INTUMESCENT NON-FIBROUS FIRE-STOP BLOCKS**

**DESCRIPTION**
A non-inflammable, non-fibrous, compressible, foil-clad-intumescent and sponge block, 1m long, with self-adhesive strips fitted down both sides for joining the blocks together, designed to form a fire and smoke barrier. Services can be passed through the block(s).

**USE**
Suitable for use in ceilings, floors, or walls in computer rooms, sterile areas, and other ‘clean’ areas.

**PERFORMANCE**
Tested to BS476 Part 22 (1987), achieving integrity of 138 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

**ORDERING REFERENCES:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Depth x Width</th>
<th>Ref</th>
<th>Depth x Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIB1</td>
<td>50mm x 150mm</td>
<td>SIB2</td>
<td>100mm x 150mm</td>
</tr>
<tr>
<td>SIB1A</td>
<td>50mm x 100mm</td>
<td>SIB2A</td>
<td>100mm x 100mm</td>
</tr>
<tr>
<td>SIB1B</td>
<td>50mm x 50mm</td>
<td>SIB2B</td>
<td>100mm x 50mm</td>
</tr>
</tbody>
</table>

NB: SIB1 = 1 hour rating and SIB2 = 2 hours rating.

**INTUMESCENT-COATED SLABS**

**DESCRIPTION**
A high density rock fibre slab with intumescent coating on both sides, which can be easily cut with a sharp knife and over painted or decorated. Appropriate jointing compound is supplied.

**USE**
Suitable for use as a permanent fire barrier in walls and floors. In large floor openings they should be supported with wire mesh. Intumescent Jointing Compound is supplied with each slab for fixing sections together. It is ideal for use over door frames, between the frame head and ceiling. Where there are PVC pipes and cables use Envirograf® pipe wraps (Product 7) or Firoblok sleeves (Product 110).

**PERFORMANCE**
Tested to BS476 Part 22 (1987), achieving integrity of 240 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

**ORDERING REFERENCES:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 60</td>
<td>60mm x 600mm x 1200mm</td>
</tr>
</tbody>
</table>

(1 hour - 4 hours fire rating)
DESCRIPTION
A high density fire-stop sponge with either white intumescent coating on both sides or black impregnated sponge that is easily cut with a sharp knife and can be painted over/decorated. An appropriate quantity of Envirograf® Jointing Compound is supplied.

USE
Suitable for use as a permanent fire barrier, where no fibres are permitted (e.g., including computer rooms, operating theatres, sterile areas, electronics areas, and food preparation areas. Where services pass through the slab, use Envirograf® Products 1, 7, 13, and 110.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving integrity of 138 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Ref</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHITE COATING</td>
<td></td>
</tr>
<tr>
<td>NF50/500</td>
<td>50 x 500 x 1000</td>
</tr>
<tr>
<td>NF50/750</td>
<td>50 x 750 x 1000</td>
</tr>
<tr>
<td>NF50/1000</td>
<td>50 x 1000 x 1000</td>
</tr>
<tr>
<td>BLACK IMPREGNATED</td>
<td></td>
</tr>
<tr>
<td>BNF50/500</td>
<td>50 x 500 x 1000</td>
</tr>
<tr>
<td>BNF50/750</td>
<td>50 x 750 x 1000</td>
</tr>
<tr>
<td>BNF50/1000</td>
<td>50 x 1000 x 1000</td>
</tr>
</tbody>
</table>
DESCRIPTION
A dry mix to which water is added and then mixed like plaster or sand/cement. No shuttering boards are required. When set, the mortar is load bearing. It can be drilled with wood bits and is easily cut to allow the installation of services. Standard single-bag FM mix available in 25kg bags (FM25). A new two-bag FM/A mix comprises one FM25 bag and one 6.25kg bag of pumice aggregate additive to be mixed uniformly together before adding water – this has greater volume than the standard FM25 bag yet retains structural integrity.

USE
Good for fire stopping around building services that pass through floors. Lay rockwool slabs into the opening, leaving the required depth for the mortar, according to the loading required. It is essential to fit Envirograf® Product 7 (intumescent wraps) around PVC pipes, cables, and steel pipes. For areas over 600x900mm, it is essential to reinforce with 30mm chicken wire mesh, fixed with FB/C straps and support battens. See data sheet for full details.

PERFORMANCE
Tested in accordance with BS476 Part 22 (1987). The test report shows that there was no loss of integrity of the slab itself during the 240 minutes period and 240 minutes insulation. For non-load-bearing areas, 25mm thickness will give 240 minutes integrity. For load-bearing areas, 50mm thickness for light loading, 60mm thickness for medium loading and 70mm thickness or more for heavy loading.

ORDERING REFERENCES:
FM25 25kg
FM25/A Fire Mortar/Aggregate 31.25kg (FM25 & 6.25kg additive)
FB/C1 25x1250mm steel straps*
FB/C2 25x2500mm steel straps*
*with fixing holes at 300mm centres
SUP Support Bars (folded zintec metal strips 18SWG)

SPECIAL DELIVERY CHARGES APPLY: PLEASE SEE PRICE LIST
INTUMESCENT WRAPS

DESCRIPTION
Three types of very economical foil-clad Intumescent wraps for pipes and cables. A limited range of acoustic protection versions is also available.

USE
For use around pipes or cables in brick or block walls, and in concrete floors. Also for use with Products 4, 5, and 6, the wrap is pushed into the hole, leaving a 10mm gap back from the wall face for pointing with sand and cement or slab coating or plaster. The wraps will crush PVC pipes, trunking, and cables, and will cool steel pipes when attacked by fire – an economical way to protect services. A label is supplied to adhere to treated pipes or cables, for identification to the relevant authorities. See also Envirograf® Products 25 and 110 for cable and pipe protection.

PERFORMANCE
This product underwent a series of fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987). It has been tested on sealing penetrations of various pipes passing through different types of floors and walls. Integrity results of up to 249 minutes were achieved. Also tested at VNE to European Standard EN1363-1 (2000)

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Reference</th>
<th>External Pipe Diameter</th>
<th>Depth of Wrap</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EW#</td>
<td>18mm to 600mm</td>
<td>30mm</td>
<td>1-3 hours</td>
</tr>
<tr>
<td></td>
<td>(# = external pipe/cable size)</td>
<td>50mm</td>
<td>1-4 hours</td>
</tr>
</tbody>
</table>

Diameters over 215mm have varying depths of 100-200mm (See price list for full range)

Ordering example:
For 83mm external diameter PVC pipe, order EW83/3 for 1 hour to 3 hours, or EW83/4 for up to 4 hours

A label is provided for application to the protected service so that authorities can see the service is protected.

NEW INTUMESCENT WRAP IN 10m ROLL FORM

DESCRIPTION
This continuous wrap on a roll is ideal for fire protection of multiple pipes and cable services. Cut to size and wrap around the service. Supplied in two widths, with cutting sizes for each pipe size, plus tags and labels to adhere to the pipe or wall. Protection for up to four hours.

PERFORMANCE
This product has been tested to BS476 Part 20 (1987) and EN1366-3 (2000).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Width of Wrap</th>
<th>Protection Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWE1</td>
<td>30mm</td>
<td>1-3 hours up to 200mm diameter</td>
</tr>
<tr>
<td>EWE2</td>
<td>50mm</td>
<td>1-4 hours protection up to 400mm diameter</td>
</tr>
</tbody>
</table>
CAST-IN-CONCRETE ACOUSTIC / SMOKE / FIRE PROTECTION SLEEVE

DESCRIPTION
A circular metal collar with an intumescent lining, designed for setting into concrete and to allow any type of service (cable, pipe, etc) to be inserted or removed at any time. Removable end-caps are made from acoustic sponge and fireproof card, and can be cut with a sharp knife to accommodate services up to 200mm internal diameter. They can be fitted into bored holes if new services are required after the concrete has been set. Suitable for use in either domestic or industrial applications (such as computer rooms, hospitals, laboratories, etc).

USE
For use around services in fire-rated floors, the sleeve is fastened to the reinforcing mesh with wire ties and cast into the concrete. The enclosed ends prevent concrete from filling the inner part of the sleeve. After casting and before the concrete is set, the ends are simply wiped clean with a damp cloth. When the concrete is set, the end caps are released by scoring around the rim tape with a sharp knife. End-caps are then cut to fit the service and are placed back into the end of the sleeve. At any time, these end caps can be removed for maintenance, offering excellent versatility. In a fire, the intumescent liner expands to fill the gap around the services and blocks passage of smoke and fire. End-caps stop smoke passing through the floor. Acoustic end caps provide excellent attenuation to airborne sound. Metal end-caps can be supplied for use after setting, allowing people to walk over or pallet trucks to pass over.

PERFORMANCE
Tested to BS476 Parts 20 & 22 (1987), giving up to 4 hours protection and sound insulation to Doc E of UK Building Regulations and BS476 Part 31/1. Also tested at VNE to European Standard EN1363-1 (2000). Acoustic testing to BS EN ISO 717-1 (1999).

ORDERING REFERENCES:
CCS083 To suit pipes up to 076mm
CCS195 To suit pipes up to 166mm
CCS138 To suit pipes up to 116mm
CCS250 To suit pipes up to 200mm
Standard sleeve length 150mm. Other lengths and sizes made to order. Circular, square, or rectangular shapes are also available to order.

INTUMESCENT COLLAR

DESCRIPTION
Circular intumescent collars with versatile fixings enabling the units to be fitted onto ceilings, floors, or walls; or they can be rebated into ceilings or walls (hollow/plasterboard). Up to 4 hours protection for pipes 45 - 650mm internal diameter. An acoustic version is available.

PERFORMANCE
The WPCS unit has been tested to BS476 Parts 20 & 22 (1987), giving up to 4 hours of fire protection. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
Please see the current price list for full details of available products and their ordering references.
DESCRIPTION
An intumescent grille unit available in two types: wall mounted and glass mounted.

USE
Fan cover units can be installed over VentAxia, Xpelair, or other makes of wall or window fans, giving fire and smoke protection to escape corridors and staircase fire escapes.

PERFORMANCE
Contains a front MG grille, giving up to 73 minutes integrity to BS476 Parts 20 & 22 (1987). Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
FCW Wall-mounted
FCG Glass-mounted
Add suffix /X for Xpelair plus the model, catalogue number, and fan size
Add suffix /V for VentAxia plus the model, catalogue number, and fan size

When ordering fan covers, please allow a minimum 25mm clear gap around the fan mouldings for ease of fixing and wiring.

Can also be supplied with smoke shutters with 24V electro-magnet with automatic re-set solenoid. Fan cover required under Building Regulations and 17th Edition of IEE Regulations

See also Product 33 Firoblok® sleeves for air conditioning/ventilation outlet protection (p 20).
**MULTI-PURPOSE BOX**

**DESCRIPTION**
Envirograf® multi-purpose boxes comprise a box section containing intumescent material and a fireproof sponge smoke seal. One side of the metal cover can slide off, to allow fitting over existing services and in tight corners. Fixing brackets can be turned so that the unit can be fitted to a wall or ceiling or be recessed into a hollow plasterboard wall. The box unit is supplied with a fireproof sponge which can be easily cut with a sharp knife or scissors to fit around the service(s) as a smoke seal. The fireproof sponge can be removed and replaced for ease of maintenance at any time.

**USE**
The Envirograf® multi-purpose box is the most versatile of its kind available and has been specifically designed for most installation requirements where services pass through fire barrier ceilings, floors, and walls. It can be surface-mounted or recessed.

**PERFORMANCE**
The multi-purpose box was tested to BS476 Parts 20 and 22 (1987), achieving up to 4 hours of fire protection. Also tested at VNE to European Standard EN1363-1 (2000).

**ORDERING REFERENCES:**

<table>
<thead>
<tr>
<th>REF</th>
<th>BOX SIZES (OTHER SIZES MADE TO ORDER)</th>
<th>DEPTH(A)</th>
<th>INSIDE(B)</th>
<th>OUTSIDE(C)</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>EB 45/50</td>
<td>50mm 45mm 67mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB 55/50</td>
<td>50mm 55mm 76mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB 72/50</td>
<td>50mm 72mm 93mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB 83/50</td>
<td>50mm 83mm 105mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB115/50</td>
<td>50mm 115mm 138mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB135/50</td>
<td>50mm 135mm 155mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB166/50</td>
<td>50mm 166mm 196mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB215/50</td>
<td>50mm 215mm 255mm 2h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB216/100</td>
<td>100mm 166mm 196mm 4h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB221/100</td>
<td>100mm 215mm 255mm 4h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB265/100</td>
<td>100mm 265mm 315mm 4h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EB315/100</td>
<td>100mm 315mm 365mm 4h</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**INTUMESCENT PIPE COVERS**

**DESCRIPTION**
Metal saddle units made from powder-coated 18SWG zintec and filled with intumescent material. Supplied 50mm deep for 2 hours protection, 100mm deep for 4 hours protection, and in a variety of standard sizes. Other sizes can be made to order.

**USE**
For use with single or multiple pipes, where pipes are tight to the wall (1), over pipes and trunking penetrating suspended ceilings (2), in corners (3), or over cable trays.

**PERFORMANCE**
Tested to BS476 Parts 20 & 22 (1987), achieving 2 hours protection and 4 hours protection. Also tested at VNE to European Standard EN1363-1 (2000).

<table>
<thead>
<tr>
<th>Ref (2 hrs)</th>
<th>Ref (4 hrs)</th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC 50/2</td>
<td>PC 50/4</td>
<td>50mm</td>
<td>55mm</td>
</tr>
<tr>
<td>PC 65/2</td>
<td>PC 65/4</td>
<td>65mm</td>
<td>72mm</td>
</tr>
<tr>
<td>PC 75/2</td>
<td>PC 75/4</td>
<td>75mm</td>
<td>83mm</td>
</tr>
<tr>
<td>PC100/2</td>
<td>PC100/4</td>
<td>100mm</td>
<td>110mm</td>
</tr>
<tr>
<td>PC127/2</td>
<td>PC127/4</td>
<td>127mm</td>
<td>130mm</td>
</tr>
<tr>
<td>PC150/2</td>
<td>PC150/4</td>
<td>150mm</td>
<td>160mm</td>
</tr>
<tr>
<td>PC175/2</td>
<td>PC175/4</td>
<td>175mm</td>
<td>180mm</td>
</tr>
<tr>
<td>PC200/2</td>
<td>PC200/4</td>
<td>200mm</td>
<td>210mm</td>
</tr>
<tr>
<td>PC225/2</td>
<td>PC225/4</td>
<td>225mm</td>
<td>235mm</td>
</tr>
<tr>
<td>PC250/2</td>
<td>PC250/4</td>
<td>250mm</td>
<td>260mm</td>
</tr>
<tr>
<td>PC300/2</td>
<td>PC300/4</td>
<td>300mm</td>
<td>310mm</td>
</tr>
</tbody>
</table>

See price list for full range. Add /C to the end of the references above if you require corner units. Other sizes made to order: state internal dimensions (1 and 2) and the depth (3) as depicted in the illustrations A & B below left.
ELECTRICAL CONSUMER UNIT / FUSEBOX FIRE PROTECTION SYSTEM

DESCRIPTION
The Envirograf® electrical cover unit (ECU) consumer unit/fusebox cover is designed to protect consumer units, fuseboxes, and switch boxes along escape routes such as staircases or corridors in homes of multiple occupation (HMOs), apartment blocks, and corridors in hotels, offices, factories, etc. These covers protect escape routes if the electrics overheat. They have an intumescent lining which expands in a fire, safely sealing off the unit and stopping air from entering the cover, thus stifling any fire. Made in standard sizes, but special sizes can be quickly made to order (state height, width, and depth of the required cover, allowing 30mm minimum clearance all around for connections etc). Access doors to the covers can be hinged to open to the side or to drop downwards (please state your preference when ordering). The access doors are fastened by metal turnbuttons (see the photographs above).

USE
Envirograf® electrical cover units are easy to fit over electrical units and they can be cut to accommodate cables, conduits, or trunking entering the units.

PERFORMANCE
Tested to BS476 Part 22 (1987) and EN1364-1 (1999).

ORDERING REFERENCES:
ECU Electrical cover unit (see price list for more details)

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DESCRIPTION
A fast-curing adhesive, suitable for strong bonding of most materials.

USE
This glue can be used to bond metals, plastics, wood, etc. Some surfaces require cleaning with a special activation agent prior to application of the adhesive.

ORDERING REFERENCES:
Activator/Cleaner 200ml
Cyanoacrylate Adhesive 50g
INTUMESCENT PROTECTION SLEEVE SYSTEM FOR CABLES
All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations

DESCRIPTION
A complete unit giving fire and smoke protection to electrical and plumbing services passing through fire barrier walls made from block, brick, concrete, and hollow plasterboard. The system comprises three parts:
(A) A semi-flexible tube 200mm or 600mm long that can be cut to the right size to suit the floor or wall. In case of fire, this will intumesce and fill the hole, preventing the spread of fire.
(B) Two smoke protection units (one placed each side of the penetration) that allow the maintenance of services but, in a fire, prevent the spread of smoke. (See also Product 110).

USE
Fire barrier for use in walls and floors, where cables can be easily installed or removed.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving 130 minutes integrity in solid walls, and 67 minutes in hollow plasterboard walls. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Ref</th>
<th>Internal</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICP1</td>
<td>50mm</td>
<td>65mm</td>
</tr>
<tr>
<td>ICP2</td>
<td>90mm</td>
<td>115mm</td>
</tr>
<tr>
<td>ICP3</td>
<td>115mm</td>
<td>150mm</td>
</tr>
<tr>
<td>ICP4</td>
<td>165mm</td>
<td>210mm</td>
</tr>
</tbody>
</table>
Add suffix /2 for 200mm long and /6 for 600mm long. Other sizes available.

INTUMESCENT PADS
All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations

DESCRIPTION
Intumescent pads with self-adhesive tape on the back, for single and multi-opening steel and PVC trunking. For PVC trunking through hollow partitions, see Products 28 or 110 (IWS/H).

USE
The pads are adhered inside Steel, PVC, and uPVC electrical trunking where it passes through fire barrier walls or floors, enabling access at all times to the cables. In a fire, the pads expand to fill the trunking space and prevent the passage of fire and smoke.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving an integrity of 181 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Ref</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP21</td>
<td>25 x 50</td>
</tr>
<tr>
<td>IP22</td>
<td>50 x 50</td>
</tr>
<tr>
<td>IP33</td>
<td>75 x 75</td>
</tr>
</tbody>
</table>
See price list for full range, up to 375mm trunking.
INTUMESCENT TRUNKING PILLOWS
All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations

DESCRIPTION
A compressible intumescent pillow with cord and retention tag to fix to the trunking.

USE
Use this product when cold smoke as well as fire protection is required in steel or PVC trunking passing through walls and floors. The retaining cord and lug fit inside the trunking, so if the pillow is removed the lid cannot be re-fitted without first replacing the pillow. The pillows will initially allow for 30% or less filling of cables and will then compress to allow for 50% cable fill without overheating the cables. If trunking is more than 50% full, then intumescent pads (Envirograf® Product 26) should be used.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving up to 4 hours integrity. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
TP33  To fit 75mm x 75mm trunking
TP34  To fit 75mm x 100mm trunking
See price list for trunking pillows up to 300x150mm (others made to order)

TRUNKING WRAPS
All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations

DESCRIPTION
An intumescent trunking wrap, to fit around PVC trunking of all sizes.

USE
Use wherever PVC electrical trunking passes through a block, brick, or concrete fire barrier wall or floor. The wrap is fitted around the trunking, and pushed into the wall or ceiling, so that in a fire the wrap expands and crushes the trunking. Can be used where PVC electrical trunking passes through plasterboard partitions or walls. See also Envirograf® Product 110.

PERFORMANCE
This product underwent a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of 130 minutes in solid walls, and 67 minutes in hollow walls. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
TW  State the size of trunking and the thickness of the wall
INTUMESCENT CABLE TRAY PILLOW
All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations

DESCRIPTION
This is a true intumescent compressible pillow, filled with fireproof sponge and intumescent material. The pillow covering is coated glass-cloth which alone gives up to 4 hours of fire protection. In a fire, the pillow’s stitching breaks and the intumescent pillow contents expand around and between the cables to fill up the opening.

USE
For use where cable trays pass through fire-rated ceilings, floors, and walls. Supplied with a fitted cord and retention tag which can be rivetted or screwed onto the cable tray.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving an integrity of 181 minutes. Also tested at Cidemco to European Standard EN13501-2 (2004).

ORDERING REFERENCES:
TE  See price list. Can be made to fit any size trunking and opening.
INTUMESCENT FIRE PROTECTION GASKETS

All Electrical Products to comply with revised the 17th Edition IEE Regulations, Document B of UK Building Regulations. **Important:** without gaskets, the wall is only rated 5 minutes protection.

**DESCRIPTION**
An intumescent gasket that fits into BESA boxes, universal conduit boxes, and socket or switch boxes designed to comply with British Standards and IEE Regulations.

**USE**
Where conduits pass through fire-rated ceilings and walls, it is a requirement to terminate each side with a BESA or universal box fitted with intumescent gaskets to stop fire penetrating. It is also a requirement to fit intumescent gaskets in the back of metal switch/socket boxes where they are back-to-back and cables pass through the wall. All dry lining boxes and metal boxes fitted in dry-lining walls must have intumescent gaskets fitted to comply with the 17th Edition IEE Regulations. To comply with Document E of UK Building Regulations (sound-proofing in plasterboard ceilings and walls), acoustic protection must be fitted for both impact and airborne sound. Envirograf® acoustic protection is approved by Robust Details.

**PERFORMANCE**
Envirograf® gaskets in metal boxes gave up to 4 hours fire protection and 70 minutes integrity and insulation in dry-lining boxes when tested to BS476 Parts 20/22 (1987). Plastic boxes in ceilings/walls have also been tested to European Standards EN1365-2 (1999), NEN6069 (2005), and EN1364-1 (1999) for 84 minutes.

**ORDERING REFERENCES:**
- **ABG** Adjustable Box Gasket (50mm / 100mm deep)
- **MTC** Marshall Tufflex Ceiling Rose Cover
- **BEG** BESA Box Gasket
- **DPG** Double Plug Box Gasket
- **SPG** Single Plug Box Gasket
- **CRG** Ceiling Rose Gasket
- **SSB** Single Shallow Box
- **DSB** Double Shallow Box
- **GBOX/T** Twin shallow box + gasket
- **GBOX/S** Single shallow box + gasket
- **GBOX/D** Double shallow box + gasket
- **GBOX/SD** Single deep box + gasket
- **GBOX/DD** Double deep box + gasket

Two types of Envirograf® acoustic and fire-rated box covers are available – one for dry lining boxes and the other for metal boxes.

MULTIPLE BENEFITS

- Very easy to fit
- Well-supported in the plasterboard
- Cable entry through the back, bottom or sides
- No adhesive required
- Suitable for metal & plastic boxes
- In a 64dB studwork partition, the combined effect was 63dB
- Replaces plasterboard boxes, putty material and leaves the whole box free for cables, such as a socket box with 3 x 2.5mm² twin-and-earth cables

For use where socket and switch boxes and ceiling rose boxes are recessed into the plasterboard or lath-and-plaster walls or ceilings in domestic, public, and commercial buildings, to comply with Document E Acoustic and Document B Building Regulations. Acoustic and fire protection is essential and a requirement.

New timber-framed buildings and walls in mobile homes: all units can either be retro-fit or new build.

Acoustic boxes: with fire seals for dry lining boxes, the acoustic cover has the intumescent gasket in the back of the cover so, as the plastic box and cables melt, the intumescent gasket expands, filling the area up to the plasterboard.

Metal boxes: Envirograf® acoustic and fire-rated covers have a 2mm intumescent pad with adhesive tape, to fit inside the back of the metal box. This does not stop cables from coming through at any point, including the back, leaving all the box clear to connect the sockets and switches.

Envirograf® covers are made for single, double, twin, and triple boxes and for larger multiple recessed switch boxes.

When acoustic covers are not required, use Envirograf® intumescent gaskets inside boxes (made to suit all sizes of box).

ORDERING REFERENCES:

All items below are to suit boxes up to 55mm depth. Others made to order.

ACOUSTIC COVERS WITH FITTED GASKETS FOR PLASTIC BOXES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NABC/A1</td>
<td>Acoustic cover with fitted intumescent gasket for single dry lining box</td>
</tr>
<tr>
<td>NABC/A2</td>
<td>Acoustic cover with fitted intumescent gasket for double dry lining box</td>
</tr>
<tr>
<td>NABC/A3</td>
<td>Acoustic cover with fitted intumescent gasket for twin dry lining box</td>
</tr>
</tbody>
</table>

ACOUSTIC COVERS WITH LOOSE GASKETS FOR METAL BOXES

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NABC/M1</td>
<td>Acoustic cover with loose intumescent gasket for single metal box</td>
</tr>
<tr>
<td>NABC/M2</td>
<td>Acoustic cover with loose intumescent gasket for double metal box</td>
</tr>
<tr>
<td>NABC/M3</td>
<td>Acoustic cover with loose intumescent gasket for twin metal box</td>
</tr>
</tbody>
</table>
DESCRIPTION
A very lightweight, self-supporting and completely ventilated tent (FT) designed to avoid overheating of the light fitting. Cable entries are fitted at the top of the tent, and it is easily installed by one person in minutes. (With no extra supports, simple clip fixing, no mechanical screw fixing required). An acoustic tent is also available to attenuate airborne and impact sound (FT/AC). The acoustic type enables soundproofing without overheating of the light fitting. A version is available for air conditioning units (AIR).

USE
For use where recessed fluorescent light fittings or air conditioning units are installed above suspended or plasterboard fire rated ceilings, to maintain fire integrity. No extra supports are necessary because of its light weight. Can be used over air conditioning units. Acoustic covers have been fully tested at The Building Test Centre. Reports are available on request.

PERFORMANCE
This product underwent a number of fire resistance tests employing the general procedures and criteria of BS476 Part 22 and Part 23 Clause 5 (1987), achieving 88 minutes integrity. Acoustic version tested to comply with Document ‘E’. Also tested to NEN 6072 (1997).

ORDERING REFERENCES:
LIGHTING COVERS
Ref Dimensions
FT1 350mm x 300mm x 150mm
FT2 650mm x 600mm x 150mm
FT21 650mm x 300mm x 150mm *
FT4 1250mm x 600mm x 150mm
FT41 1250mm x 300mm x 150mm
FT5 1550mm x 600mm x 150mm
FT51 1550mm x 300mm x 150mm *
FT6 1850mm x 600mm x 150mm
FT61 1850mm x 300mm x 150mm
FT7 2150mm x 600mm x 150mm *
FT8 2450mm x 600mm x 150mm *

AIR CONDITIONING COVERS
Ref Dimensions
AIR1 400mm x 400mm x 240mm
AIR2 400mm x 400mm x 280mm
AIR3 600mm x 600mm x 250mm
AIR4 850mm x 850mm x 240mm
AIR5 850mm x 850mm x 280mm

Acoustic versions of all the above can be made to order
Popular sizes from stock. Sizes marked * are special sizes made to order.
DESCRIPTION
With the increased use of downlighters, the integrity of the plasterboard and suspended ceilings can be reduced to approximately 4 minutes protection. Envirograf® downlighter covers are used to restore the integrity required by British Standards. The covers are available in many standard sizes, and other sizes can be made to order. They are easily installed in about five minutes from below or above the ceiling. With cable entries on top, the intumescent covers are ventilated to avoid light fittings overheating. Cables can also be passed under the rim of the cover for connections to transformers. Only the light fitting penetration is required to be protected, not the transformer.

USE
For use over downlighters and loudspeakers, to maintain the integrity of fire-rated ceilings.

PERFORMANCE
This product has been tested employing the general procedures of BS476 Parts 22, 23, and 23 (Clause 5) (1987), in various ceiling and floor constructions. Integrity results of up to 240 minutes have been achieved. Also tested to NEN 6069 (1997).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Standard Light Fitting</th>
<th>Light Fitting &amp; Transformer Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>Length Width Height</td>
<td>Reference</td>
</tr>
<tr>
<td>DLC0 150mm 150mm 120mm</td>
<td>DSLVA 300mm 100mm 120mm</td>
<td></td>
</tr>
<tr>
<td>DLC1 130mm 130mm 70mm</td>
<td>DSLVB 300mm 180mm 140mm</td>
<td></td>
</tr>
<tr>
<td>DLC2 130mm 130mm 100mm</td>
<td>DSLVC 300mm 220mm 140mm</td>
<td></td>
</tr>
<tr>
<td>DLC3 130mm 130mm 140mm</td>
<td>DSLVD 300mm 300mm 140mm</td>
<td></td>
</tr>
<tr>
<td>DLC4 180mm 180mm 130mm</td>
<td>DLC5 180mm 180mm 170mm</td>
<td></td>
</tr>
<tr>
<td>DLC6 260mm 260mm 120mm</td>
<td>DLC7 260mm 260mm 230mm</td>
<td></td>
</tr>
<tr>
<td>DLC8 300mm 300mm 170mm</td>
<td>DLC9 350mm 350mm 230mm</td>
<td></td>
</tr>
</tbody>
</table>

NB: Allow clearances around light fittings: 40mm horizontal / 15mm vertical
Special sizes made to order. For advice on specifications, see contact details on back cover.

Envirograf® DSLV Covers are made to measure for use where transformers or chokes are connected to the light fitting.

Where the cover can be fitted over a suspended ceiling in roof areas or where floorboards are already lifted, use the Envirograf® Fire Cage. There are two types: one for light fittings (FC) and the other for light fittings with transformers (FC/R). A new acoustic type is available – see next page for details. See price list for full details of all types of downlighter covers.
ACOUSTIC DOWNLIGHTER COVERS AND CAGES

All Electrical Products to comply with the revised 17th Edition of the IEE Regulations and Document B of UK Building Regulations. Acoustic covers to comply with the requirements of ‘Robust Details’

DESCRIPTION

Sound absorption and fire protection of downlighters can now be achieved with the Envirograf® acoustic downlighter cover and fire cage range. After a long period of research and testing, the problem of protection and overheating has been solved. The new covers allow light fittings to operate without overheating, whilst maintaining the fire rating integrity of the ceiling to which they are fitted, thus enabling 30 minutes or 60 minutes of fire rating to be maintained. (See Product 31 for tents for fluorescent and other light fittings).

USE

Envirograf® acoustic downlighter covers can be used in areas that require good absorption of airborne and impact sound, such as businesses and shops below residential apartments and between floors of residential apartments. Acoustic covers have been fully tested at The Building Test Centre. Reports are available on request.

PERFORMANCE

Only Envirograf® covers have passed all relevant British Standards tests on all types of ceilings, complying with Document B and E (acoustic requirements) of UK Building Regulations and the revised 17th Edition IEE Regulations. Also tested to NEN 6069 (1997).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Cloth Type</th>
<th>Downlighter Cover Size</th>
<th>Diameter x Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLC0/AC</td>
<td>150mm x 120mm</td>
<td></td>
</tr>
<tr>
<td>DLC1/AC</td>
<td>130mm x 70mm</td>
<td></td>
</tr>
<tr>
<td>DLC2/AC</td>
<td>130mm x 100mm</td>
<td></td>
</tr>
<tr>
<td>DLC3/AC</td>
<td>130mm x 140mm</td>
<td></td>
</tr>
<tr>
<td>DLC4/AC</td>
<td>130mm x 170mm</td>
<td></td>
</tr>
<tr>
<td>DLC5/AC</td>
<td>130mm x 120mm</td>
<td></td>
</tr>
<tr>
<td>DLC6/AC</td>
<td>130mm x 230mm</td>
<td></td>
</tr>
<tr>
<td>DLC7/AC</td>
<td>300mm x 170mm</td>
<td></td>
</tr>
<tr>
<td>DLC8/AC</td>
<td>300mm x 230mm</td>
<td></td>
</tr>
</tbody>
</table>

NEW! This Envirograf® downlighter converter allows you to convert from high power to low power consumption and provide fire protection for the light fitting, all in one easy-to-fit product. Please request the data sheet on this very effective new product. See also page 93.

Special sizes made to order. For advice on specifications, see contact details on back cover.
Envirograf® acoustic covers have been on sale for many years, meeting the requirements of Document E of UK Building Regulations for impact and airborne sound. New loft requirements mean that there should be more insulation in both domestic and commercial buildings, so the Envirograf® covers have been made stronger to take insulation material over the top, or the insulation material can be cut and fit around the cover. This new Envirograf® cover meets the thermal requirements of Document L of UK Building Regulations. Although there are now fire-rated downlighters on the market, these are a fire hazard if the fire is below the roof. They will hold in the ceiling but, even without a fire, the metal canisters, in lots of cases, are reaching 200°C and they will ignite paper, cloth, and many insulation materials. In a fire, the temperature reached inside the canister is in excess of 500°C.

The new Envirograf® covers ventilate, thus dispersing heat, and seal up in a fire, stopping the heat and flames from getting into the roof space. Some people say that downlighter covers are not required, especially for domestic situations. In tests carried out by laboratories on this type of fire, from ignition in a lounge or bedroom, the fire can reach 350°C in just 3 minutes, and in 2 minutes 50 seconds ceiling paper can be alight and the flames can be penetrating into the light fittings. Some people have no idea how quickly fire can travel or how quickly the temperature can rise.

Tests carried out by Building Research shows the ferocity of fire in a lounge (see the picture sequence below). Envirograf® acoustic loft covers are made in many sizes to suit all recessed light fittings.
INTUMESCENT TOILET/BATHROOM VENTILATION OUTLET PROTECTION

DESCRIPTION
Intumescent protection for both ceiling and wall ventilation outlets. Can be easily installed in about four minutes. Used with outlets which connect to toilet/bathroom ventilation fans. Available in sizes from 50mm to 600mm diameter, for domestic and industrial applications. The internal linings are non-clogging and leave 90% free ventilation area. The range now includes superb new Firoblok® external protection sleeves for PVC ventilation outlets.

USE
(A) Internal intumescent liner for PVC or steel ventilation pipes in a wall
(B) Length of grey PVC 110mm outside diameter pipe with internal intumescent liner
(C) Length of steel tube fitted with an internal intumescent liner, for cavity walls
(D) Intumescent-lined metal collar for use in suspended or plasterboard ceilings and ductings, supplied with fixing brackets, screws, and washers
(F) Firoblok® externally-fitted intumescent protection for PVC ventilation outlets

PERFORMANCE
Products were rigorously tested BS476 Parts 20 and 22 (1987), achieving an integrity of 120 minutes. The new Firoblok® products were tested to BS476 Part 21 (1987), achieving an integrity of 90 minutes.

ORDERING REFERENCES:
Internal intumescent liner (See A):
<table>
<thead>
<tr>
<th>Ref</th>
<th>(Pipe ID* mm)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV 50/1</td>
<td>50</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV 75/1</td>
<td>75</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV 98/1</td>
<td>98</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV100/1</td>
<td>100</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV100/2</td>
<td>100</td>
<td>2 hour</td>
</tr>
<tr>
<td>LV150/1</td>
<td>150</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV200/1</td>
<td>200</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV225/1</td>
<td>225</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV300/1</td>
<td>300</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

Length of grey PVC 110mm OD* pipe with internal intumescent liner (See B):
<table>
<thead>
<tr>
<th>Ref</th>
<th>Pipe Length (mm)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV225/P</td>
<td>225</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV300/P</td>
<td>300</td>
<td>1 hour</td>
</tr>
<tr>
<td>LV450/P</td>
<td>450</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

Metal sleeve with internal intumescent liner for cavity walls (See C):
<table>
<thead>
<tr>
<th>Ref</th>
<th>(Pipe ID* mm)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVM100/1</td>
<td>100</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

Metal sleeve with fixing brackets and internal intumescent liner, for suspended or plasterboard ceilings, supplied with fixing screws (See D):
<table>
<thead>
<tr>
<th>Ref</th>
<th>(Pipe ID* mm)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVML 98/1</td>
<td>98</td>
<td>1 hour</td>
</tr>
<tr>
<td>LVML100/1</td>
<td>100</td>
<td>1 hour</td>
</tr>
<tr>
<td>LVML150/1</td>
<td>150</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

New Firoblok® external protection sleeve for PVC ventilation outlets (See F):
<table>
<thead>
<tr>
<th>Ref</th>
<th>(Service OD* mm) Hole (mm)</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC 80</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>EC100</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>EC125</td>
<td>125</td>
<td>130</td>
</tr>
<tr>
<td>EC150</td>
<td>150</td>
<td>155</td>
</tr>
</tbody>
</table>

*ID=internal diameter & OD=outside diameter (Other sizes made to order, including square/oblong sections)
**DESCRIPTION**

Envirograf® intumescent ventilation grilles are specially designed for 100mm, 150mm, 200mm, and 300mm plastic or metal ducting apertures. They can be wired into a 24V fire alarm system, to close the grille’s shutter when the power is turned off. Alternatively, a 240V to 24V transformer can be supplied, for wiring into a smoke detector system. If a 24V system is not available, a memory spring closure option is available, which is activated when the shutter temperature reaches 80°C.

**USE**

This product range is designed to be used on rectangular or circular, plastic or metal ventilation ducting. The grilles contain intumescent strips fixed to the inner grille plate and these seal up in a fire to maintain the integrity of the fire-rated ceiling, floor, or wall compromised by the ducting.

**PERFORMANCE**

This product range has been tested and achieved 60 minutes fire protection.

**ORDERING REFERENCES:**

**FOR CIRCULAR DUCTING**

- LVC/AUTO/100 100mm
- LVC/AUTO/150 150mm
- LVC/AUTO/200 200mm
- LVC/AUTO/250 250mm
- LVC/AUTO/300 300mm

**CIRCULAR MEMORY SPRING OPTION**

- LVC/MEM/100 100mm
- LVC/MEM/150 150mm
- LVC/MEM/200 200mm
- LVC/MEM/250 250mm
- LVC/MEM/300 300mm

**FOR RECTANGULAR DUCTING**

- ACG/AUTO/100 100mm
- ACG/AUTO/150 150mm
- ACG/AUTO/200 200mm
- ACG/AUTO/250 250mm
- ACG/AUTO/300 300mm

**RECTANGULAR MEMORY SPRING OPTION**

- ACG/MEM/100 100mm
- ACG/MEM/150 150mm
- ACG/MEM/200 200mm
- ACG/MEM/250 250mm
- ACG/MEM/300 300mm
INTUMESCENT FIRE AND SMOKE GRILLES

DESCRIPTION
Regulations often require fire and smoke protection grilles for openings in walls, ceilings, fire doors or at the entry point of ventilation ducting. The Envirograf® TJ Grille fulfills this requirement, offering full fire and smoke protection.

USE
The TJ grille can be either installed into an existing 24V fire/smoke alarm system or (alternatively, if there is no alarm system available or the grille is required to be independent), into an Envirograf® AC mains to 24V control unit with smoke detector circuit and N/O or N/C contacts. (This control unit can operate up to 3 grilles).

There are four re-setting options for the TJ Grille:
- Manual re-set (by hand, with a screwdriver or knife) with a permanent loading of 125mA 24V
- An automatic re-set grille with a permanent loading of 125mA, with a re-set loading of 6A 24V for a period of 1 second
- A non-electrical grille containing a thermal breaker that automatically activates at 70°C, moving the shutter to the closed position
- A non-electrical grille containing a memory spring device that operates in the temperature range 50°C to 65°C, closing the shutter to fire and smoke in about 47 seconds

Also available are TJ grilles that open when activated by the fire alarm system, to allow smoke to escape into designated outlets.

PERFORMANCE
This product underwent a fire resistance test employing the general procedures and criteria of: BS476 Part 20 (1987), achieving an integrity of 66 minutes; and BS476 Part 22 (1987), achieving an integrity of 73 minutes.

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Ref</th>
<th>Internal Hole Size</th>
<th>External Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Height x Width</td>
<td>Height x Width</td>
</tr>
<tr>
<td>NTJ1</td>
<td>140 x 280mm</td>
<td>200 x 340mm</td>
</tr>
<tr>
<td>NTJ2</td>
<td>240 x 280mm</td>
<td>300 x 340mm</td>
</tr>
<tr>
<td>NTJ3</td>
<td>190 x 305mm</td>
<td>250 x 365mm</td>
</tr>
<tr>
<td>NTJ4</td>
<td>270 x 305mm</td>
<td>325 x 365mm</td>
</tr>
<tr>
<td>NTJ5</td>
<td>340 x 380mm</td>
<td>400 x 440mm</td>
</tr>
<tr>
<td>NTJ6</td>
<td>390 x 430mm</td>
<td>450 x 490mm</td>
</tr>
<tr>
<td>NTJ7</td>
<td>390 x 505mm</td>
<td>450 x 565mm</td>
</tr>
<tr>
<td>NTJ8</td>
<td>290 x 580mm</td>
<td>350 x 640mm</td>
</tr>
</tbody>
</table>

References shown for manual reset grilles only. Other grilles made to order.

Add suffix /A for auto reset grille
Add suffix /MS for memory spring grille
Add suffix /TL for thermal break grille

TJ Grilles are available with the following optional extras:
- CTJ1: A control unit supplying up to 3 grilles (2 if the grilles are larger than 400x400mm and 1 if over 500x500mm)) with a smoke detector circuit with N/O or N/C terminals for AC mains to 24V supply
- SG/S: Smoke detector and base for use with the CTJ1 Control Unit
- SG/CD: A control unit with a battery back-up and charger to keep the grille open in a 24 volt power failure
**MG AND MGL INTUMESCENT GRILLES**

**DESCRIPTION**
An intumescent ventilation grille consisting of an inner and outer plate having a total thickness of 5mm. These plates house the intumescent material which, in a fire, would seal up the slots or louvres in under 40 seconds, giving up to 73 minutes of fire protection.

**USE**
These grilles are used for both sides of doors and walls. Two types of plate are supplied: Type MG is slotted for more ventilation and type MGL is louvred, non-viewing. The grilles are finished in brown, white, stainless steel, and polished brass finish. Other sizes and colours are made to order. Each slot gives approximately 6cm² and each louvre gives 3.2cm² free ventilation area. Can be used internally, externally, and on ceilings.

**PERFORMANCE**
Tested to BS476 Parts 20 and 22 (1987), achieving 66 minutes on one side only; and BS476 Part 22 (1987), achieving an integrity of 73 minutes. Also tested to EN1363-1 (2000).

**ORDERING REFERENCES:**
- MG & MGL: Available in 12 standard sizes (other sizes made to order)
- MG/S or MGL/S for standard doors/walls requiring protection to risk side only
- MG/D or MGL/D for doors or walls requiring protection on both sides

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**INTUMESCENT BLOCK GRILLES**

**DESCRIPTION**
A slim block-type intumescent grille, giving an excellent free ventilation area. The openings would be sealed off in under one minute when attacked by fire. Can be made as shallow as 15mm deep to special order.

**USE**
These grilles are used in ceilings, doors, walls, and ventilation ducting.

**PERFORMANCE**
This product underwent a fire resistance test employing the general procedures and criteria of: BS476 Part 22 (1987), achieving an integrity of 240 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

**ORDERING REFERENCES:**
- BG  Original Style – Sizes from 50mm up to 500mm (plus specials)
- NBG  New Style – Sizes from 100mm to 300mm
DESCRIPTION
Intumescent cloth with thin white fireproof card face (1mm thick), for upgrading flat panelled doors to fire-rated doors. Also available with veneer or birch/Gaboon plywood. Intumescent cloth can be supplied independently for use by door manufacturers. It can be used between 4mm plywood panels if new doors are being made, giving 30 minutes of fire protection. Fit the paper between 12mm plywood panels for 60 minutes of fire protection. The product is applied with Envirograf® thixotropic contact adhesive (TCA). After fitting, the intumescent cloth/plywood or intumescent cloth/veneer may be appropriately painted or varnished.

USE
Applied to panels in doors, in conjunction with Product 42.

PERFORMANCE
Achieved in excess of 30 minutes of fire resistance on softwood doors made from 31mm stiles and rails, and panels 6mm or thicker. 60 minutes of fire protection can also be achieved. This intumescent paper has been fully tested to BS476 Part 22 (1987) on newly-manufactured and old doors, at UKAS-approved test centres. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
ES/MP Cloth 1220mm wide for composite panel door manufacture
Cloth with protective fire card for normal on-site upgrading:
ES/MP/FC900 For painting over 900mm wide (supplied by the metre)
ES/MP/FC3/2 For painting over 1000mm wide x 1220mm long
ES/MP/FC3/3 For painting over 1220mm wide x 2000mm long
ES/MP/GP Gaboon ply facing
ES/MPV Veneered finish (please ask for details of available finishes)
ES/MP/PLY Birch facing
Door upgrade kits available:
ES/MP/DK2C White finish
ES/MP/DK2D Clear varnish on Oak veneer
ES/MP/DK2P Clear varnish on Pine veneer
ES/MP/DK3 Clear varnish on Gaboon plywood
TCA Thixotropic Contact Adhesive for adhering plywood to doors.
See price list for full details.
INTUMESCENT EXPANSION JOINTS

DESCRIPTION
Envirograf® intumescent expansion joints are made from compressible fireproof sponge strips with foil-clad intumescent material on one or two sides. They are unaffected by water or chemicals and are easy to install.

USE
Useful as movement or expansion joints in fire walls, floors, concrete slabs, and steel work, or as a cavity joint between brickwork and timber structures. They can be used around ventilation ducting as a movement and anti-vibration joint, using double-sided tape to adhere to the ducting, and can also be fitted to seal over the tops of cable trays passing through protected building elements.

PERFORMANCE
Tested to BS476 Part 22 (1987), sealing horizontal and vertical expansion joints of different widths, achieving integrity and insulation results of up to 240 minutes. Also tested at VNE to European Standard EN13504-2 (2004).

ORDERING REFERENCES:
E Ten standard sizes available (others made to order)

INTUMESCENT-COATED FIREPROOF SPONGE

DESCRIPTION
Fireproof sponge impregnated and coated with intumescent material. Very flexible, but stable in small or large apertures. Unaffected by water or chemicals. Supplied in sheets or strips from 10mm to 100mm thick. Can be cut to size.

USE
For small or large expansion/movement joints, under raised computer floors, between glass screen walls (rainscreens, with or without ventilation) and concrete floors, and between metal cladding and concrete.

PERFORMANCE
Tested to BS476 Part 22 (1987) achieving 138 minutes integrity. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
FCS1/30 – 30mm thick for 1 hour rating
FCS2/40 – 40mm thick for 2 hours rating (See price list for full range)

FIREPROOF SPONGE AND PROFILE SPONGE

DESCRIPTION
A fireproof sponge that emits no toxic fumes and is incom bustible. Supplied in standard strips and sheets (see price list). Other sizes made to order. Product 41 can be supplied cut to match steel cladding profiles.

USE
The fireproof sponge can be used under roofing sheets, between walls and floors, or as packing around small openings (such as spaces around windows and door frames in timber buildings) and it can be faced with Envirograf® Product 63 (Cement Filler).

PERFORMANCE
This product has been used in a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987) achieving an integrity of 138 minutes.

ORDERING REFERENCES:
F – Fireproof Sponge MPF – Profile Sponge (See price list for details)
INTUMESCENT PAINT AND VARNISHES FOR WOOD ETC

DESCRIPTION
Envirograf® Product 42 is a range of clear and white intumescent coatings, giving protection to a range of wood and wood-derived materials. A UV protection product is available.

USE
These coatings can be used on insulation board, MDF board, plasterboard, wood, and some wood-derived products. There is no need to strip off the existing paint or varnish, as Envirograf® adhesion primer can be used. See data sheet for full details.

PERFORMANCE
All types of new and old doors (some over 200 years old) have been tested in accordance with BS476 Part 22 (1987), and their fire resistance was upgraded to an integrity of over 50 minutes. The HW range can also upgrade wood panelling to 30 minutes or 60 minutes fire rating, according to the type of wood and its thickness. Open joists and floorboards have achieved 60 minutes of fire protection on a loaded floor to BS476 Part 20 (1987). Timber mouldings and carcases have achieved 90 minutes of fire rating to BS476 Part 20 (1987). A range of timber types, including MDF, plywood, etc, have been tested and complied with BS476 Parts 6 and 7 (1987) Classes 0 and 1. Also tested to EN1364-1 (1999) for 66 minutes. This coating system now complies with the Classification B/S1/d0 of European Standard EN13501 Parts EN13823 (2002) single burn test (SBI) and EN11925-2 (2002) ignitability.

ORDERING REFERENCES:
Please refer to our new data sheet before specifying coatings.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantities Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWAP/WB</td>
<td>Clear adhesion primer supplied in 1 litre, 2½ litres, or 5 litres (for use over existing paint or varnish at 12m² per litre per coat)</td>
<td>1 litre, 2½ litres, or 5 litres</td>
</tr>
<tr>
<td>HW01F</td>
<td>White coating supplied in 1 litre, 2½ litres, or 5 litres (for new timber or over HW primer: internal use only)</td>
<td>1 litre, 2½ litres, or 5 litres</td>
</tr>
<tr>
<td>AEC</td>
<td>Acrylic Emulsion Coating (semi-gloss only, use over HW01F)</td>
<td>1 litre, 2½ litres, or 5 litres</td>
</tr>
<tr>
<td>HW02E</td>
<td>Clear coating supplied in 1 litre, 2½ litres, or 5 litres (for new timber or over HW Primer: internal or external use)</td>
<td>1 litre, 2½ litres, or 5 litres</td>
</tr>
</tbody>
</table>

A range of top coats is available. Please see new data sheet for full details.
MAGNETIC TIMED DOOR HOLDER
(ACCEPTED BY FIRE BRIGADES AND BUILDING CONTROL OFFICERS)

DESCRIPTION
An electro-magnetic timed door holder operating independently of existing fire alarm system, with a master unit for mains voltage in and 24V out, with electro-magnet and armature plate. Units are available for single doors, double doors, or up to 4 doors.

USE
Designed to hold open a single/double doors for up to 57 seconds, cutting down on draughts, noise, and loss of heat, as well as preventing buckling and distortion of doors, a common problem with permanent door holders. The 24V electro-magnet releases the door to be shut by the door closer as usual. Ideal for hospitals, residential homes, offices, computer suites, hotels, and warehouses. Can be supplied for operation by blind people. Holds the door open until the person has passed through the opened doorway. No wiring to existing fire alarm system as agreed by the fire brigade, because duration of door opening is under one minute.

ORDERING REFERENCES:
MHK1 Kit for one door (1 control, 1 magnet, 1 plate)
MHK2 Kit for two doors (1 control, 2 magnets, 2 plates)
MHK4 Kit for four doors (1 control, 4 magnets, 4 plates)
MH24 24V magnet and armature (parts can be supplied separately)
MH240 240V magnet and armature (parts can be supplied separately)
SGC/2 Control unit only (if required separately)
MDHB Bracket for fixing magnetic door holder to wall

FIREPROOF PVE/A FOAM

DESCRIPTION
A polyurethane foam that emits virtually no fumes or gases when affected by flame. The can contains 2 liquids, which mix when leaving the can and expand by absorbing moisture from the air. It expands up to 40 times its original volume on application. Supplied in 750ml environmentally-friendly aerosol spray can (PVE/A) for application by tube. It can also be supplied in a 750ml screw-top can (PVE/A/G) for use with industrial trigger gun (PVE/A/IG). A red identification coating and labels are available on request, to show building control and fire officers it is our fire-tested foam. In order to maximise the yield of each can, Envirograf® solvent cleaner (PVE/A/S) is essential to clean tubes and nozzles for re-use and for cleaning up any spillage in the application area.

USE
For filling around awkward openings, around services, and behind door frames (without taking off architraves) and behind window frames. For fire sealing of services passing through the foam, use Envirograf® Product 110. Use Envirograf® solvent cleaner to clean the application tube (and spills) immediately after use, saving the foam remaining in the can. Can be painted over.

PERFORMANCE
The product has been used in a 1 hour rated plasterboard wall with gaps up to 30mm, achieving 123 minutes integrity at BTC. In a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987), it achieved an integrity of 130 minutes. The foam is not affected by UV light.

ORDERING REFERENCES:
PVE/A 750ml aerosol can with application tube
PVE/A/G 750ml aerosol can for use with industrial applicator
PVE/A/IG Trigger applicator for use with PVE/A/G industrial aerosol pack
PVE/A/S Do not forget: solvent cleaner (supplied in 150ml or 500ml cans)
ACRYLIC THIXOTROPIC ADHESIVE

**DESCRIPTION**
A water-based acrylic intumescent thixotropic adhesive, which when set is water resistant. Available in ½ litre, 1 litre, 2½ litres, and 5 litres tubs and 310ml tubes.

**USE**
For fixing wood, plasterboard, concrete, foam backing of carpet, ceiling tiles, etc. Applied at 4m² per litre. Can also be used with Envirograft® Products 38 (intumescent cloth), 39, 40, & 41 (fireproof sponge products).

**PERFORMANCE**
Tested to BS476 Part 20 (1987), achieving 183 minutes integrity.

**ORDERING REFERENCES:**
FPA/WT Supplied in 310ml tubes

BOARD SEALANT & ADHESIVE

**DESCRIPTION**
An intumescent acoustic board sealant and adhesive available in 310ml tubes.

**USE**
Used to fix fire protection board and quilt materials (Envirograft® Products 91 and 111) to concrete and steelwork without the use of screws or nails.

**PERFORMANCE**
Tested to BS476 Part 20 (1987), achieving 183 minutes integrity.

**ORDERING REFERENCES:**
FPA/WT Supplied in 310ml tubes

BUILDFIX MULTI-PURPOSE FLEXIBLE BUILDING ADHESIVE

**DESCRIPTION**
A multi-purpose adhesive that remains flexible and does not become brittle. It will bond: brick, ceramics (including tiles), cloth, glass, plaster/plasterboard, plastics, polystyrene, and timber. Solvent-free, easy to clean, can be prepared and painted over, low odour, white in colour. When dry on the surface, it remains flexible internally, to cope with life’s everyday impacts.

“You’ll never get a fixing there!”

**BUILDFIX CAN!**
Difficult-to-reach areas, thin section walls, bad uneven surfaces, brittle surfaces, hard surfaces, concealed areas, and tight corners.
INTUMESCENT LETTER FLAP SYSTEM

These units are designed to fit three aperture sizes:—
(1) 50x267mm, (2) 69x290mm, and (3) 100x350mm
(see data sheet for full details)

The flap system is supplied in three different kits as follows:—
(A) Front frame and flap + intumescent liner
(B) Front frame and flap + intumescent liner + rear frame and flap
(C) Front frame and flap + intumescent liner + rear security hood

DESCRIPTION
An intumescent fire and smoke protection letter flap system comprising a frame fitted with smoke protection seal and a spring-loaded flap, which can be used on either side of a door, and an intumescent liner to fix into the door aperture. A security hood or lockable letter plate (LLP – 50mm W x 267mm H) can be supplied as internal alternatives to fit to the door.

USE
The hole size to cut for the L1-L4 types is 50x267mm, and overall size is 75x315mm
The hole size to cut for the L6-L8 types is 69x290mm, and overall size is 100x335mm
The hole size to cut for the L9-L12 types is 100x350mm, and overall size is 120x390mm
All letter box systems are supplied with fixing screws.

PERFORMANCE
This product has been included in a fire test employing the general procedures and criteria of BS476 Part 22 1987, built into a composite door, maintaining the integrity of the door for 61 minutes. Also tested to European Standard EN1634-1 (2000), achieving 68 minutes.

ORDERING REFERENCES:
Kit A = Front frame and flap + intumescent liner
Kit B = Front frame and flap + intumescent liner + rear frame and flap
Kit C = Front frame and flap + intumescent liner + rear security hood

Finish Ref Ref Ref
Brown L1/A L1/B L1/C
White L2/A L2/B L2/C
Stainless L3/A L3/B L3/C
Brass L4/A L4/B L4/C

Finish Ref Ref Ref
Brown L6/A L6/B L6/C
White L7/A L7/B L7/C
Stainless L8/A L8/B L8/C
Brass L9/A L9/B L9/C

BS and RAL colours are made to order at extra cost

Finish Ref Ref Ref
Brown L6/A L6/B L6/C
White L7/A L7/B L7/C
Stainless L8/A L8/B L8/C
Brass L9/A L9/B L9/C

*Coloured: black, brown, fawn, or white. BS and RAL colours are made to order at extra cost

Finish Ref Ref Ref
Brown L6/A L6/B L6/C
White L7/A L7/B L7/C
Stainless L8/A L8/B L8/C
Brass L9/A L9/B L9/C

BS and RAL colours are made to order at extra cost

INTERNAL SMOKE FLAP comprising 10mm deep metal surround with a metal flap, housing a smoke and draught seal to suit aperture size 50x267mm, available in the following standard finishes:

Ref Finish
SM/S Black, brown, or white
SM/S Stainless steel
SM/S Brass

LOCKABLE INTERNAL LETTER FLAP similar to the internal smoke flap above, except that the flap has a twist-action catch fitted to help keep out undesirable materials such as fireworks, junk mail, etc. Items LLP3 & LLP4 are lockable internal letter flaps with key holder.

Ref Finish
LLP3 Black, brown, or white With key holder
LLP4 Black, brown, or white With key holder
INTUMESCENT LINER FOR MAIL APERTURES

DESCRIPTION
An intumescent liner comprising two L-shaped sections fitted with self-adhesive backing for ease of fixing. The liner can be cut to size with a sharp knife to fit the opening. Sizes to suit other openings can be made to order.

USE
For mail apertures in fire doors, where existing letter flaps are to be used. Aperture sizes up to the limit for each type (LBL1 and LBL2) can be accommodated by cutting the liner with a sharp knife as required. A bare wood aperture must be sealed with paint or wood sealer before fixing the liner. Suitable for fitting to doors from 38mm to 70mm thick.

PERFORMANCE
These products were included in a test employing the general procedures and criteria of BS476 Part 22 (1987) built into a composite door, maintaining the integrity of the door for 61 minutes. Also tested to European Standard EN1634-1 (2000), achieving 68 minutes.

ORDERING REFERENCES:
LBL1 (85x340mm) LBL2 (65x290mm) (Special sizes made to order)

INTUMESCENT METAL FIRE BOX AND FLEXIBLE FIRE BAG

DESCRIPTION
Burning paper and liquids put through mail apertures in doors and walls can have devastating consequences, especially if premises are occupied. Nocturnal arson attacks on homes can be particularly worrying for domestic residents. The Envirograf® rigid firebox or flexible firebag protects mail slots, so homes and business can have the confidence that their premises are guarded against damaging and disruptive arson attacks. These products are safe to use because they do not contain liquids or gases. The intumescent lining puts out the flames.

USE
The firebox/bag fits onto the back of the door (illustration 1) or wall (optional rigid spout for metal boxes shown in illustration 2). Fire is extinguished by the intumescent material, which can be easily renewed. Rigid metal fireboxes are supplied with a hinged lid and flush lock as standard, but a hinged front door is available as an optional extra. Use the flexible firebag (illustration 3) in situations where doors open tightly onto walls, allowing full door opening.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving integrity of 39 minutes.

ORDERING REFERENCES:
Ref A B C D Aperture
FB1 360mm 300mm 170mm 375mm 70mm x 275mm
FB2 380mm 300mm 90mm 375mm 70mm x 275mm
FB3 360mm 300mm 200mm 400mm 70mm x 275mm
FB4 675mm 600mm 300mm 600mm 70mm x 275mm

State if a front access door is required in the metal box (extra cost item). The standard metal box (FB) is fitted with a flush lock as standard, but can be supplied with a recessed lock at extra cost. Other sizes made to order.

FLEX1 335mm 335mm 130mm 420mm 70mm x 315mm
FLEX2 335mm 335mm 130mm 420mm 55mm x 330mm
FLEX3 260mm 260mm 95mm 400mm 55mm x 290mm
FLEX4V 560mm 560mm 130mm 360mm 70mm x 315mm
FLEX5V 530mm 530mm 100mm 350mm 55mm x 290mm

NB: FLEX3, FLEX4V, and FLEX5V are for use in UPVC moulded doors, with FLEX4V and FLEX5V being used in a vertical orientation. Flexible bags (FLEX) are fitted with metal turn-buttons and pressure-fastening strips.
DESCRIPTION
This under-floor fire barrier (UF60) is made of graphite-impregnated cloth, covered with a reinforced Kraft paper and sealed. A wire mesh reinforced version is available (UF104). It is supplied 5mm thick x 1800mm long and in standard widths of 400mm, 450mm, and 500mm, to suit joist openings 300mm, 350mm, and 400mm respectively. Other sizes made to order. Acoustic sponge slabs (UFS) 40mm thick x 2½m long can be cut to size to fit over the fire barrier, enabling you to meet the requirements of UK Building Regulations Document E (H in Scotland) for airborne and impact sound acoustic protection and to provide a ‘U’ value to the ceiling/floor. UF can be used under load-bearing or non-load-bearing floors.

USE
Use under floorboards laid directly over decorative lath-and-plaster ceilings. As the barrier is wider than the gap between the joists, it allows 50mm either side to be bent upwards and fastened to the joists with 30mm clout nails and the provided metal plates. The barrier must also overlap adjacent pieces by 50mm. The barrier is lightweight and easy to fit – just lift three floorboards at 1800mm intervals. The 40mm thick UFS acoustic sponge meets the requirements of Document E of UK Building Regulations with Envirograf® Products 84, 96, and 105.

PERFORMANCE
The UF104 under-floor barrier was installed in a ceiling/floor without any plasterboard or lath-and-plaster (just the barrier itself) and tested to BS476 Part 21 (1987), achieving 104 minutes integrity, insulation, and load-bearing.

ORDERING REFERENCES:
UF Under-floor barrier (state type/size) supplied with fixing plates
UFS Acoustic sponge slabs for use between joists (state size)
See Product 131 for floor impact sound protection strips
DESCRIPTION
IFB1: an insulated fire barrier giving up to 77 minutes integrity and insulation. Easily fixed with FB/C metal straps. Overlap by 50mm and adhere together with Envirograf® Product 46 (IA) intumescent adhesive. The barrier is 6mm thick and made from layers of impregnated cloth. No gloves or masks are necessary. It can be cut with a sharp knife or scissors.
IFB2: a similar fire barrier to IFB1 but 8mm thick, including extra insulation material. This gives up to 87 minutes integrity and insulation. Both IFB1 & IFB2 barriers can be made acoustic to meet the requirements of Document E of UK Building Regulations for airborne sound.

USE
The curtain is used for fixing to timber or steel trusses, or between concrete soffits and suspended ceilings, etc. It fits easily around services or into awkward corners, and can be used to wrap around metal trunking to upgrade protection.

PERFORMANCE
IFB1 was tested at TRADA (achieving 77 minutes integrity) and IFB2 was tested at BTC (achieving 87 minutes integrity and insulation) to BS476 Part 22 (1987).

ORDERING REFERENCES:
IFB1 Insulated Fire Barrier rated 77 minutes integrity/insulation
IFB2 Insulated Fire Barrier rated 87 minutes integrity/insulation
IFB1/S Acoustic Sponge version of IFB1
IFB2/S Acoustic Sponge version of IFB2
State width and length required for the above
FB/C1 25mm x 1250mm steel fixing straps for concrete, steel, or timber
FB/C2 25mm x 2500mm steel fixing straps for concrete, steel, or timber (drilled with fixing holes 300mm apart)
FB/D Wire for fixing fire barrier around ducting

TEMPERATURE INSIDE FURNACE WAS OVER 1000°C BUT CLOTH SURFACE WAS ABOUT 160°C OUTSIDE

FRAME TEMPERATURE TOUCHABLE BY HAND
DESCRIPTION
A lightweight and easy-to-use cavity wall barrier available in non-ventilated and ventilated versions and in various widths, for use in cavities in block or brick walls or between brick walls and timber-framed buildings. It can be fixed across the cavity or it can be self-supporting.

USE
There are six types of Envirograf® cavity wall barrier:–

● Non-ventilated wall barrier (WB) is made from impregnated cloth and galvanised wire mesh and is ideal for fixing to cavity walls before fixing door/window frames (see illustrations 5 & 6 opposite). It can be pressed into a V-shape to be self-supporting in the cavity (see illustration 12 opposite). The WB range of barriers can be fitted with a sponge as a cold bridge.

● Ventilated wall barrier (VWB) is made from intumescent material adhered to impregnated cloth with reinforced kraft paper and galvanised wire mesh inside. It can have the following vent patterns: pattern A has one row of small vents, pattern B has two rows of small vents, pattern C has three rows of small vents, pattern D has three rows of medium vents, and pattern E has three rows of large vents. See vent diagram below.

● In response to requests for a non-ventilated wall barrier like WB but with a facility to let moisture out and keep smoke out of the cavity, this can be achieved with the VWBG barrier consisting of the standard WB barrier but with rubber grommets and plastic tubes coming out of the seal, through the brick/block joints to the outside (see illustration 10 opposite).

All the above barriers can be made to any width and 950mm or 1900mm standard lengths.

● Non-ventilated wall barrier sponge (WBS). Compress the fireproof sponge into cavity. Can be adhered with Envirograf® Product 46 intumescent adhesive (IA).

● Ventilated wall barrier sponge (VWBS). Compress the fireproof sponge into cavity. It can have the following vent patterns: pattern A has one row of small vents, pattern B has two rows of small vents, and pattern F has one row of large vents. See vent diagram below. Can be adhered with Envirograf® Product 46 intumescent adhesive (IA).

● Non-ventilated waterproof Thermal Cavity Barrier (TCB) offers both fire protection and effective thermal protection around window and door apertures.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving up to 104 minutes integrity and 100 minutes insulation. Also tested to BS476 Part 22 (1987) achieving 132 minutes. Tested to BE EN1363-1.

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>WB Foiled Cavity Wall Barrier (non-ventilated)</th>
<th>VWB Foiled Cavity Wall Barrier (ventilated with apertures)</th>
<th>WBS Sponge Cavity Wall Barrier (non-ventilated)</th>
<th>VWBS Sponge Cavity Wall Barrier (ventilated with apertures)</th>
<th>VWBG Foiled Cavity Wall Barrier (ventilated with grommets and tubes, stopping smoke in the cavity)</th>
<th>TCB Sponge Thermal Cavity Barrier (non-ventilated)</th>
</tr>
</thead>
</table>

Standard foil barrier widths: 75mm, 120mm, 150mm, 200mm, and 250mm.

Standard sponge barrier widths: 80mm, 135mm, 165mm, 210mm, and 265mm.

See price list for full range. State gap width when ordering. Other sizes made to order.
CAVITY WALL BARRIER AND VENTILATED CAVITY WALL BARRIER

1. Built-in WB
2. Self-supporting WBS
3. Built-in VWB
4. Self-supporting VWBS
5. Fixed with clout nails WB
6. Fixed with clout nails WB
7. Fixed with clout nails WB
8. Fixed WB
9. Fixed with clout nails VWB
10. Fixed with clout nails VWBG
11. Fixed WB or VWB
12. Self-supporting WB
**FB30 FIRE BARRIER CURTAIN**

**DESCRIPTION**
FB30 is a 1mm thick x 1220mm wide reinforced glass cloth impregnated with red Envirograf® intumescent coating, made up to 40m long. A very robust material which can be used for drop curtains up to 10m. An acoustic version (FB30AC) is available to meet the airborne and impact sound reduction requirements of Document E of UK Building Regulations. FB30AC has 15mm acoustic sponge adhered to the cloth but, for greater acoustic properties, sponge up to 20mm can be used. The barrier can also be used horizontally over a suspended ceiling to give more fire protection or between floorboards and a secondary floor.

**USE**
The barrier can be fixed to steel, wood, and between concrete soffits and suspended ceilings with Envirograf® metal straps (FB/C1 or FB/C2). The straps can be cut with metal snips. Joints should be overlapped by 50mm and adhered with the supplied Envirograf® adhesive. FB30 can be wrapped around steel, trunking, or wood as a fire barrier. If more insulation is required, see Envirograf® Product 54. Lightweight and easy to install. Can be cut with a sharp knife. Does not shed fibres – ideal for hospitals, ‘clean’ areas, and computer rooms. Services can be passed through in conjunction with Envirograf® Products 13 and 16. Openings can be made in the barrier for access fire doors, as shown above.

**PERFORMANCE**
Tested to BS476 Part 22 (1987), achieving 36 minutes integrity and 15 minutes insulation. Tested over Class 0 suspended ceiling horizontally, achieving 22 minutes insulation to BS476 Part 22 (1987). Tested to BS476 Parts 6 & 7 (1987) achieving Class 0/1. Tested to BS476 Part 23 (1987) over light fittings, achieving 46 minutes integrity.

**ORDERING REFERENCES:**
- FB30 Standard 1220mm width
- FB30/AC Acoustic 1220mm width

Fire barrier curtain fixings are as follows:–
- FB/C1 25x1250mm steel straps*
- FB/C2 25x2500mm steel straps*
  *with fixing holes at 300mm centres
- FB/CLIP Suspended ceiling clip (T-bar clips fixed every 500mm)
- FPA Overlap joint adhesive (the curtain is supplied with a small quantity of fire-proof adhesive for joints)
- ST50 Jointing tape for strength (See Product 137 Hi-Tak 500ml aerosol jointing spray)
FB70 FIRE BARRIER CURTAIN

DESCRIPTION
FB70 is a 1.2mm thick x 1220mm reinforced glass cloth impregnated with yellow Envirograf® insulation coating, giving up to 81 minutes fire integrity. An acoustic version (FB70/AC) approximately 17mm thick is available with Envirograf® sponge adhered to one face of the cloth, meeting the airborne and impact sound requirements of Document E of UK Building Regulations. If more insulation is required, see Envirograf® Product 54.

USE
For use in loft areas, from ceilings to the top of partitions, under computer floors, or for wrapping around trunking, steel, and wood. Joints should overlap by 50mm and be adhered with the supplied adhesive, and fixed with Envirograf® metal straps (FB/C1 or FB/C2). The straps can be cut with metal snips. Openings can be made in the barrier for access doors or drop vents (the drop vent shown above right allows protected bats to fly through).

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving 81 minutes integrity and 22 minutes insulation.

ORDERING REFERENCES:
- FB70 (Standard 1220mm wide)
- FB70/AC (Acoustic 1220mm wide)
- FB/C1 (25x1250mm steel straps*)
- FB/C2 (25x2500mm steel straps*)
- FBA (Suspended ceiling clip (T-bar clips fixed every 500mm))
- FPA (Overlap joint adhesive (the curtain is supplied with a small quantity of fire-proof adhesive for joints))
- ST50 (Jointing tape for strength)

The waterproof barrier shown below or the standard FB30/FB70 barriers can be used inside or outside thatched roofs (under the thatch). They are strong enough to walk on.

NEW WATERPROOF FIRE BARRIER CURTAIN FOR THATCHED ROOFS

DESCRIPTION
Properties with thatched roofs are extremely vulnerable to fires from above or below the thatch, and efficient, long-lasting protection is essential for the safety of the household or business. This exciting new product has three distinct advantages: robust fire defence, a waterproof foil covering to protect against rain penetration, and increased thermal insulation properties complying with current new UK heat loss regulations.

USE
This waterproof fire barrier is placed under the thatch before new or replacement thatching and is very easy and quick to fit. (See Product 56 for FB30 non-waterproof 30 minutes fire barrier for application internally in the loft space). Both fire barriers have no loose fibres. Use Product 66 (3-2-1 fire retardant spray) under the eaves for additional protection. Ask for further information about a range of Envirograf® products to protect thatched roofs from fire.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving 70 minutes integrity and 22 minutes insulation.

ORDERING REFERENCES:
- TH70F (Foiled Barrier 1000mm width)
- Fixing components as for FB70 above
INTUMESCENT ACRYLIC MASTIC

DESCRIPTION
A halon-free, intumescent mastic with good adhesion to all materials. Available in standard colours brown, grey, and white (other colours available). Supplied in 310 ml tubes.

USE
For fire stopping gaps from 1mm up to 60mm wide. For wider gaps, fit Product 40 (fireproof sponge) into the gap first. After application, a skin forms that allows painting, but the material stays permanently flexible. It is a low-pressure material with good cooling ability for metals, and expands up to five times its volume in a fire. Ideal for use horizontally or vertically around exit door frames, cable trays, ducting, and partitions.

PERFORMANCE
This product has been used in numerous fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987). Integrity ratings of up to 249 minutes were achieved. Also tested to European Standard EN1363-1 (2000), achieving 126 minutes.

ORDERING REFERENCES:
- AM 310ml tube
  - State colour required

An acoustic acrylic mastic is now available

INTUMESCENT PUTTY

DESCRIPTION
Envirograf® intumescent putty, light grey in colour (colour may vary), applied like normal putty. It can be painted over. Stays permanently flexible internally. Unaffected by moisture. Ideal for use around copper pipes and cables, and around steel electrical trunking. Available in 310ml tubes and 1kg, 2½kg, and 5kg tubs.

USE
Used for filling small holes and joints up to 50mm wide. It will expand by 20% in a fire.

PERFORMANCE
This product has been subjected to a fire test in accordance with BS746 Part 22 (1987), achieving an integrity of 97 minutes.

ORDERING REFERENCES:
- BP 310ml tubes or tubs of 1kg, 2½kg, or 5kg

SILICONE SEALANT

DESCRIPTION
A flexible silicone sealant which, on curing, is like rubber in consistency. A food-safe version is available for use in food preparation areas.

USE
For use at joints between many building elements and materials, giving a water-tight and gas-tight seal. For example, in steel, brick and blockwork, concrete, ceiling, walls and partitions. Supplied in 310ml tubes, available in clear and white. For gaps up to 50mm wide. Not for use on boilers, hot flues, or stoves. See Product 115 for self-adhesive silicone tape for sealing gaps around boiler plates, heating flues, and pipe joints.

PERFORMANCE
Tested to BS476 Part 22 (1987) when used for sealing around a number of penetrations and expansion joints. Integrity ratings of up to 240 minutes were achieved.

ORDERING REFERENCES:
- SIL 310ml tube standard (state colour)
- SIL/F 310ml tube food-safe (white only)
**DESCRIPTION**
Envirograf® Wood Filler (WF) is used to: fill gaps around joints and sight panels on doors; fill holes in wood; and fill over fixing screws to improve the appearance at the surface and to prevent moisture ingress. It is a versatile water-based wood filler which is light buff in colour, but can be coloured as required by mixing-in a water-based stain or emulsion paint. It can also be prepared for painting when hardened. Can be coated over with either Envirograf® Product 42 (HW01 or HW02) or Product 92 (ES/VFR or QVFR) to give robust protection from fire.

**USE**
WF is easily-applied with a putty knife or spatula. It becomes touch-dry in approximately 30 minutes and, when hardened, it can be rubbed down with a light abrasive paper before painting over with Envirograf® Product 44 (PVE/A foam). Also used to fill cracks in ceilings and walls before Envirograf® Product 84 (S/Paper) is applied. Applied by trowel or spatula. When dry, it becomes hard like cement and it can be painted over.

**PERFORMANCE**
This product has been used in conjunction with PVE/A foam around cables and pipes, in a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of 130 minutes.

**Ordering References:**
- WF 250ml

---

**INTUMESCENT CEMENT FILLER**

**DESCRIPTION**
A ready-mixed intumescent cement filler that sets hard, like normal cement, but it does not crack. It expands in a fire. Supplied in 310ml tubes and 1 litre, 2½ litre, and 5 litre containers. Ideal for application around pipes, services, and behind door frames, for filling-in small holes or cracks, and as a facing top coat over Envirograf® Product 44 (PVE/A foam). Also used to fill cracks in ceilings and walls before Envirograf® Product 84 (S/Paper) is applied. Applied by trowel or spatula. When dry, it becomes hard like cement and it can be painted over.

**USE**
Ideal for application around pipes, services, and behind door frames, for filling-in small holes or cracks, and as a facing top coat over Envirograf® Product 44 (PVE/A foam). Also used to fill cracks in ceilings and walls before Envirograf® Product 84 (S/Paper) is applied. Applied by trowel or spatula. When dry, it becomes hard like cement and it can be painted over.

**PERFORMANCE**
This product has been used in conjunction with PVE/A foam around cables and pipes, in a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of 130 minutes.

**Ordering References:**
- CFT 310ml tube
- CF1 1 litre container
- CF2 2½ litre container
- CF5 5 litre container

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**WOOD FILLER**

**DESCRIPTION**
Envirograf® Wood Filler (WF) is used to: fill gaps around joints and sight panels on doors; fill holes in wood; and fill over fixing screws to improve the appearance at the surface and to prevent moisture ingress. It is a versatile water-based wood filler which is light buff in colour, but can be coloured as required by mixing-in a water-based stain or emulsion paint. It can also be prepared for painting when hardened. Can be coated over with either Envirograf® Product 42 (HW01 or HW02) or Product 92 (ES/VFR or QVFR) to give robust protection from fire.

**USE**
WF is easily-applied with a putty knife or spatula. It becomes touch-dry in approximately 30 minutes and, when hardened, it can be rubbed down with a light abrasive paper before painting over with Envirograf® Product 42 (HW01 or HW02) or Product 92 (ES/VFR or QVFR), or any other good-quality coating.

**Ordering References:**
- WF 250ml

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**MASTIC GUN SKELETON FRAME**

**DESCRIPTION**
Mastic gun skeleton frame with trigger (as illustrated top right).

**USE**
For use with Envirograf® 310ml tubed materials such as cement filler, mastic, and stopper, as well as other standard mastic tubes. Can be used with plastic tubes for foiled ‘sausage-pack’ products.
3-2-1 STANDARD AND WASHABLE

**DESCRIPTION**
Envirograf® 3-2-1 and 3-2-1W are clear odourless liquids for spraying onto most absorbent materials, including paper, card, carpet, cloth, polyurethane, upholstery, etc. They are safe to use and have been tested and approved for use on children’s bedding. Treated items can be dry-cleaned and remain fireproof. When affected by flame, treated materials will turn black but will not hold a flame. Items treated with Envirograf® 3-2-1W can also be washed up to eight times before they need re-treatment. Standard Envirograf® 3-2-1 can be sprayed onto real or artificial Christmas trees to protect them from fire.

**USE**
Before applying 3-2-1 or 3-2-1W, test on a small area first to ensure compatibility with the material and dyes. When spraying 3-2-1 onto materials such as curtains, cardboard, etc, use just a fine spray to dampen the material (just like a fine rain – **do not soak** it). Give polyurethane furniture a fine spray on the outer cloth and press it into the polyurethane with your hands or a clean cloth such as a handkerchief, then spray over the outer covering material with a fine spray of 3-2-1W.

**PERFORMANCE**

**ORDERING REFERENCES:**
- **3-2-1** For dry clean items
- **3-2-1 W** For bed linen and other fabrics that require regular washing

3-2-1 SPECIAL

**DESCRIPTION**
An odourless flame retardant liquid.

**USE**
For use on plastic and nylon foliage, or flowers for example in hotels, hospitals, restaurants, foyers and for Christmas Grotto materials.

**PERFORMANCE**
3-2-1 S has been tested to BS5852 Part 1 (1982) on nylon and plastic foliage.

**ORDERING REFERENCES:**
- **3-2-1 S** For artificial flowers and synthetic materials
NOTES ON FIRE DOORS
Envirograf® Fire Door Protection Products
Keeping Fire Doors Effective!

A FIRE DOOR IS NOT A FIRE DOOR WITHOUT INTUMESCENT MATERIALS

The role of the fire door is one of the most important elements of fire protection in a building. Its effectiveness in resisting flames and smoke helps to prevent a fire from spreading, thus saving property and lives by allowing time for the occupants to escape. This is particularly important in multiple occupancy housing, retirement homes, maisonettes, apartments, etc.

The fitting of a fire door is more complex than it seems. For example, a fire door must have intumescent material around either the door edge or the frame. Smoke seals should be fitted, and the door furniture should be installed with fire protection in mind.

Despite the British Standard 5588 Part 31/1 and Document B of UK Building Regulations, which clearly states the required specifications of a fire door set, fire officers are constantly finding doors with items fitted that have no fire protection qualities, thus completely removing the door’s fire integrity, e.g. letter boxes, hinges, locks, and cat and dog flaps. If a fire should occur, these doors would be ineffective and could lead to the loss of life.

The Envirograf® range of products has been designed to maintain the integrity of the fire door, particularly doors used in houses of multiple occupancy. All of the products have been produced with cost-effectiveness and ease of installation in mind, and they have been tested to the relevant British Standards. For ‘listed’ buildings, old doors can be upgraded to fire-rated doors by utilising Envirograf® Products 38 and 42.
REBATED INTUMESCENT FIRE SEALS

DESCRIPTION
Rebated intumescent seals with self-adhesive backing, supplied in 1050mm and 2020mm lengths. Available in black, brown, red, white, and real wood veneer facings. These seals offer up to one hour of fire protection.

USE
For use in frames, edges of fire doors and behind door frames. Once fitted, the facing of the seal can be painted. Note: All fire doors must now be fitted with intumescent seals.

PERFORMANCE
This product was used in hardwood doors fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of up to 60 minutes. In softwood door fire resistance tests, up to 33 minutes of integrity was achieved.

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Ref</th>
<th>Size (mm)</th>
<th>Protection</th>
<th>Ref</th>
<th>Size (mm)</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES102</td>
<td>10 x 2</td>
<td>Half Hour</td>
<td>ES302</td>
<td>30 x 2</td>
<td>One Hour</td>
</tr>
<tr>
<td>ES103</td>
<td>10 x 3</td>
<td>Half Hour</td>
<td>ES303</td>
<td>30 x 3</td>
<td>One Hour</td>
</tr>
<tr>
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<td>10 x 4</td>
<td>Half Hour</td>
<td>ES304</td>
<td>30 x 4</td>
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<td>ES154</td>
<td>15 x 4</td>
<td>One Hour</td>
<td>ES383</td>
<td>38 x 3</td>
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<td></td>
<td></td>
<td></td>
<td>ES384</td>
<td>38 x 4</td>
<td>One Hour</td>
</tr>
<tr>
<td>ES202</td>
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<td>ES403</td>
<td>40 x 3</td>
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<td>ES483</td>
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<tr>
<td>ES204</td>
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<td>ES484</td>
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<td>ES503</td>
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<td></td>
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<tr>
<td>ES283</td>
<td>28 x 3</td>
<td>One Hour</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See price list for full range of sizes
Available in 1050mm or 2020mm lengths
Finishes: black, brown, red, white, or real wood veneer

Fitting Requirements for Product 68

<table>
<thead>
<tr>
<th>Single</th>
<th>Double</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Fitting Requirements for Single Action Doors" /></td>
<td><img src="image2.png" alt="Fitting Requirements for Double Action Doors" /></td>
</tr>
</tbody>
</table>

Also used for sliding doors and windows

See also Envirograf® Products 69, 76, and 100
DESCRIPTION

A surface-mounted intumescent fire or fire/smoke seal available in black, brown, red, white, and real wood veneer finishes. No routing is necessary. Supplied with intumescent paper for use around lock and hinge areas and two labels printed “Fire Door – Keep Shut”.

USE

This product can be fitted to door frames in minutes. A 3½mm or greater gap down the closing stile and across the door head is all that is required. Seals fit directly over hinges with no hinge bind and no special gap is necessary on hinge side. Once fitted, the face of the seal can be painted, although the brush smoke seal must NOT be painted. If the brush is painted in error, it is easy to replace. Pins are supplied for pushing into the brush seal, although the brush has a self-adhesive strip at the back.

PERFORMANCE

In a test on an old door with a head gap between 7mm and 11mm, the seal just expanded and remained in place for the whole test. Tested to BS476 Part 22 (1987), achieving an integrity of up to 66 minutes with an 11mm gap at the head of the door. The intumescent strips included have also been successfully tested to BS476 Part 23 (1987).

ORDERING REFERENCES:

| ES/SDS for single door sets | NS/SDS for single door sets |
| ES/DDS for double door sets | NS/DDS for double door sets |
| (ES sets are fire/smoke seals, but NS sets are fire seals only). |

State whether rebated or open stiles on double doors and the finish required.

Packs are supplied with intumescent paper for use in lock areas and labels printed “Fire Door – Keep Shut” (See price list for full range).

If the gap at the closing stile and across the head of the door is less than 3mm, request packs containing only 1mm thick ES/30/PS seals.

Single 1050mm fire/smoke seal strips can be supplied as follows:
- ES/25/HS for head and closing stile – 2½mm thick x 30mm wide x 5mm brush
- ES/30/PS for hinge side – 1mm thick x 30mm wide x 3mm brush

Single 1050mm fire seal strips (no smoke seal) can be supplied as follows:
- NS/25/HS for head and closing stile – 2½mm thick x 30mm wide x 5mm brush
- NS/30/PS for hinge side – 1mm thick x 30mm wide x 3mm brush

Longer brush sizes can be supplied to order – please state size when ordering.

ALTERNATIVE SEAL

V-shaped rubber surface fire/smoke seal available: please ask for more details

ORDERING REFERENCES:

| ES/SDS/P for single door sets |
| ES/DDS/P for double door sets |

Fitting Requirements for Product 69

<table>
<thead>
<tr>
<th>Single</th>
<th>Double</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shows position of door seals fitted to door or frame</td>
<td></td>
</tr>
</tbody>
</table>
DESCRIPTION

This replacement door edging is supplied to fit doors with a thickness between 40mm and 56mm, and it is supplied in 2100mm lengths. It is a complete door edging with concealed intumescent and smoke seal, available for gaps of 3mm, 5mm, and 7mm, with brush seals available for other gap sizes. Supplied with adhesive and full fixing instructions. The edging wood is supplied in standard sapele finish (other finishes are available) and the brush smoke seals are available in black, grey, and white.

USE

Where door edges are regularly damaged and need maintenance, for example in hotels, hospitals, and computer rooms, Envirograf® easy-to-fit replacement door edging is ideal, as it saves the cost of replacing the entire door. See also Envirograf® Product 108 (door edge protector strips).

ORDERING REFERENCES:

ES46E  46mm wide for door thicknesses 40-46mm (trim excess)
ES56E  56mm wide for door thicknesses 50-56mm (trim excess)
State colour and size of brush smoke seal required

HOW TO FIT: Remove the existing door edge with a sharp knife, chisel, or saw, then rub down the edge with glass paper. If necessary (depending on the gap between door and frame) some planing may be required to allow for the replacement door edge. Replacement door edge fits flush one side (other side is wider to allow for planing down – see diagrams). Apply supplied glue to prepared door edge. Remove backing paper from self-adhesive strip on back of the replacement door edge. Press firmly into position. Hold the door edge firmly in place with masking tape while the glue sets (about 10-20 minutes). Finally, remove the masking tape and smooth down the projecting edge with a suitable plane and/or glass paper.
HINGE, LOCK AND DOOR CLOSER PROTECTION
Required to comply with BS476 Part 22 (1987) and Document B of UK Building Regulations

DESCRIPTION
A flexible intumescent protection sheet 1mm thick, unaffected by moisture, and supplied in standard sizes for quick and easy fitting (some with self-adhesive backing \(\ddagger\), some plain \(\ddagger\)).

USE
For use behind hinges and steel door closers and completely wrapped around the hidden parts of lock hardware on a fire-rated door. When installed, the sheet compresses without compromising its protective qualities unlike mastic which is ineffective for hinge, lock and door closure protection. The intumescent paper cools the lock, hinges, and screws and protects them from overheating in the event of a fire. Under UK Building Regulations and BS476 Part 22 (1987), all door furniture must be protected by intumescent material.

PERFORMANCE
This product was used to protect ironmongery in a number of fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987) without an integrity failure being recorded for up to 91 minutes. Also tested to EN1634-1 (2000) for 68 minutes.

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Ref</th>
<th>Size</th>
<th>Notes</th>
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<tbody>
<tr>
<td>HP 32</td>
<td>32 x 300mm</td>
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</tr>
<tr>
<td>HP 36</td>
<td>36 x 300mm</td>
<td></td>
</tr>
<tr>
<td>HP 48</td>
<td>48 x 300mm</td>
<td>Behind hinge areas</td>
</tr>
<tr>
<td>HP300</td>
<td>300 x 300mm</td>
<td>Around lock areas</td>
</tr>
<tr>
<td>LPH</td>
<td>150 x 225mm</td>
<td>Lock areas/closers</td>
</tr>
</tbody>
</table>

\(\ddagger\) = Items supplied with self-adhesive backing as standard.
\(\ddagger\) = Items NOT supplied with self-adhesive backing unless requested.

Intuplug® – intumescent plugs are available for hinge screws.

NEW CE-APPROVED SELF-CLOSING HINGE (SET OF 3)

This self-closing hinge set (Ref SCH, available in brass finish, brown, chrome finish, stainless steel, and white) means there is no longer a need for unsightly surface door closers: ideal for use in conservation areas! This set of 3 hinges acts as a complete door closer. Hinges can be individually adjusted, e.g. to latch, the centre hinge can have more tension, and the top hinge can be tightened to allow for buckled door tops. Hinges tested to BS476 Part 22 (1987) to 30/60 minutes. Also tested to EN1634-1 (2000) for 68 minutes. Tested by FIRA for age, wear, and weight for 80,000 cycles at 90° and 90,000 cycles at 400mm opening and closing.
SURFACE-MOUNTED BRUSH SMOKE SEALS

DESCRIPTION
Surface-mounted black, brown, grey, or white brush smoke seals, either with fin or without fin, with or without self-adhesive backing. 1050mm lengths or supplied in roll form.

USE
For use where intumescent seals are already fitted and smoke sealing is required. To fit the self-adhesive seal, simply peel off the backing material to reveal the adhesive tape and press to the door frame, down the edge of the rebate. Panel pins are supplied for fixing. Brush seals without self-adhesive backing can be fitted into draught seal holders. See also Envirograf® Product 78 (Envirostrip®).

PERFORMANCE
This product has been tested to comply with BS476 Part 31/1 (1987).

ORDERING REFERENCES:
ES/SS 3 3mm brush
ES/SS 5 5mm brush
ES/SS 7 7mm brush
ES/SS10 10mm brush

All of these brush seals have 4½mm polypropylene backing
Add suffix /S for a single door set, and /D for a double door set
Add suffix /R if you require a length in a roll (specify number of metres)
Add suffix /N if you do not require the self-adhesive backing tape
State the colour of brush required. See price list for full range

Fitting Requirements for Product 72

<table>
<thead>
<tr>
<th>Single</th>
<th>Double</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Fitting Diagram" /></td>
<td><img src="image" alt="Fitting Diagram" /></td>
</tr>
</tbody>
</table>

- Shows position of door seals fitted to door or frame
- Seal fitted to both single and double doors. Also used for sliding doors and windows

MEMBER OF THE FIRE PROTECTION ASSOCIATION

ISO9001

AFFILIATED TO NFPO

ENI AD DEFENDERE
DESCRIPTION
A 3mm deep x 10mm wide x 2100mm long aluminium or plastic holder (black, brown, cream, grey, red, or white plastic) containing a brush seal in various sizes and colours or a black rubber seal in various sizes and patterns. The holder has a self-adhesive backing for ease of fitting.

USE
The seal holder is rebated into wooden doors or windows and adhered to the surface of metal windows using the self-adhesive backing on the base of the holder. It can be fitted to single or double doors, folding doors, sash windows, etc. See data sheet for details.

ORDERING REFERENCES:
ES/AH Aluminium rebated holder (self-colour)
ES/PH Plastic rebated holder (black, brown, cream, grey, red, or white)
/A Add suffix /A and size for angled rubber seal
/B Add suffix /B and size and colour for brush seal
/S Add suffix /S and size for straight rubber seal
/T Add suffix /T and size for tubular rubber seal
/V Add suffix /V and size for V-shaped rubber seal

If plastic, state holder colour. If using brush seal, state its colour

Ordering example:
Envirograf® Seals Plastic Holder (black) with Brush seal 5mm (grey) – ES/PH(black)/B5(grey)

<table>
<thead>
<tr>
<th>Holder</th>
<th>Seal A</th>
<th>Seal B</th>
<th>Seal S</th>
<th>Seal T</th>
<th>Seal V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal Size</td>
<td>6/9mm</td>
<td>3/5/7/10mm</td>
<td>5/7/9mm</td>
<td>6/9mm</td>
<td>6mm</td>
</tr>
</tbody>
</table>

Important: 1-1½mm of the brush or rubber seal is held within the holder. Brush with fin is always ½mm higher than regular brush. Make allowance for this when specifying.
ACOUSTIC, DRAUGHT, SMOKE, AND WEATHER THRESHOLD SEALS

DESCRIPTION
A 7mm deep x 12mm high x 2m long aluminium holder (ES/TB) in a self-coloured finish or painted, or a plastic self-coloured holder (ES/TB/P), fitted with a fixed brush seal. The brush can be supplied in fixed depths of 19mm, 25mm, 32mm, 50mm, 75mm, or 100mm. Another version is a 2.1m long white plastic holder (ES/ATB) that permits three press-fit adjustments of the position of the brush seal, and the holder is supplied with either 25mm or 50mm brush depth.

USE
For sealing the bottom of doors, the back edge of sliding doors, between a door and wall, and down the centre stiles of double doors.

ORDERING REFERENCES:
- ES/TB Aluminium holder for fixed depth of brush seal (state size)
- ES/TB/P Plastic holder for fixed depth of brush seal (state size)
- ES/ATB Adjustable depth brush seal (state maximum 25mm or 50mm)
(See price list for full range)

ADJUSTABLE BRUSH SEAL
Adjustable surface-mounted threshold brush seal now available in white plastic holder (ES/ATB)

Simply pull the cord to free the brush and then place in the plastic holder at the chosen position for the best seal.

Adjustable plastic surface-mounted threshold brush seal for use with sliding doors and windows, and for use with Envirograf® Products 106 and 107. Suitable also for sealing over tiled floors and linoleum or vinyl floor coverings. Brush lengths adjustable by moving position in holder, based on 25mm or 50mm maximum. Plastic holder supplied in 2100mm lengths.

ORDERING REFERENCE: ES/ATB
**Description**
A 2100mm long aluminium or plastic holder (black, brown, or white plastic) containing a brush seal in various sizes and colours or a black rubber seal in various sizes and patterns.

**Use**
Fitted onto door frames, the centre stiles of doors, and around casement/sash windows and glass doors, to give acoustic, draught, smoke, and weather protection.

**Ordering References:**
ES/SH Aluminium surface-mounted holder (self-colour)
ES/SP Plastic surface-mounted holder (black, brown, or white)
/A Add suffix /A and size for angled rubber seal
/B Add suffix /B and size and colour for brush seal
/S Add suffix /S and size for straight rubber seal
/T Add suffix /T and size for tubular rubber seal
/V Add suffix /V and size for V-shaped rubber seal

If plastic, state holder colour. If using brush seal, state its colour

Ordering example:
Envirograf® Seals Surface Plastic holder (black) + Brush seal 5mm (grey) ES/SP(black)/B5(grey)

**Important:** 1-1½mm of the brush or rubber seal is held within the holder. Brush with fin is always ½mm higher than regular brush. Make allowance for this when specifying.
**DESCRIPTION**

An aluminium holder with intumescent fire and smoke seal, fitted into rebated fire doors or frames. **ES/SM30:** 30 minutes fire-rated version, comprising an 7mm deep x 9mm wide x 2200mm long aluminium holder with a choice of brush or straight rubber seal. The brush smoke seals are available in black, brown, grey, or white and 5mm, 7mm, or 10mm high. The straight rubber seal is 4mm or 7mm high. **ES/SM60:** 60 minutes fire-rated version comprising a 6mm deep x 20mm wide x 2200mm long aluminium holder with intumescent facing in aluminium with grey brush, black with black brush, brown with brown brush, red with grey brush, or white with white brush colours. Brush and rubber seal sizes as above. **ES/SM60/P:** A plastic holder with intumescent material, 7mm deep x 20mm wide x 2200mm long in aluminium, black, brown, red, and white colours. For fitting into the rebate opposite **ES/SM60,** providing increased protection and sealing efficiency. **USE**

The holder is rebated into wooden fire doors or frames, maintaining integrity and restricting the passage of fire and smoke in the event of a fire. **PERFORMANCE**

This product is an aluminium holder that houses Envirograf® Product 100, giving 30 or 60 minutes integrity to BS476 Part 22 (1987) and 69 minutes integrity to BS476 Part 23 (1987).

**ORDERING REFERENCES:**

- **ES/SM30/B** Aluminium holder 7x9x2200mm with brush seal
- **ES/SM30/S** Aluminium holder 7x9x2200mm with straight rubber seal
- **ES/SM60/B** Aluminium holder 6x20x2200mm with brush seal
- **ES/SM60/S** Aluminium holder 6x20x2200mm with straight rubber seal
- **ES/SM60/P** Plastic holder 7x20x2200mm opposite ES/SM60 seals ONLY

State holder colour/finish and brush colour if necessary

For single- and double-action doors, the straight rubber seal is preferred.

**Fitting Requirements for Product 76**

**Single**

- **ES/SM60/B** 5/7/10mm Seal
- **ES/SM60/S** 5/7/9mm Seal
- **ES/SM60/P** Plastic Strip Only

**Double**

- **ES/SM60/B** 5/7/10mm Seal
- **ES/SM60/S** 5/7/9mm Seal
- **ES/SM60/P** Plastic Strip Only

**TOP**

Important: 1-1½mm of the brush or rubber seal is held within the holder. Brush with fin is always ½mm higher than regular brush. Make allowance for this when specifying.

Also used for sliding doors and windows. Plastic coloured hinge plugs filled with intumescent are available

**FITTING INSTRUCTIONS FOR ENVIROGRAF® PRODUCT 76 REBATED FIRE AND SMOKE SEALS**

**ES/SM60:** fit the aluminium profile into the rebate and fix with the nails supplied. Peel off the backing strip from the intumescent finishing piece and adhere it to the aluminium holder, thus hiding the heads of the fixing nails. **ES/SM60/P & ES/SM30:** peel off the backing strip from the profile and adhere into the rebate.
INTUMESCENT GLAZING STRIPS

DESCRIPTION
A 2mm thick compressible intumescent strip, coloured black, brown, grey, red, and white, with self-adhesive tape backing, supplied in 10m long rolls.

USE
Used in steel doors, wood doors, and partitioning. The strips are fitted to beads each side of the fire-rated glazing. Although the seal is 2mm thick, it will compress to ½mm and this will not affect its performance.

PERFORMANCE
This product was used in a number of fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987). An integrity of 45 minutes (10mm thick hardwood or 15mm thick softwood) and up to 65 minutes (20mm wide hardwood) was achieved.

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Ref</th>
<th>Width</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 8/10</td>
<td>8mm</td>
<td>Half hour</td>
</tr>
<tr>
<td>G10/10</td>
<td>10mm</td>
<td>Half hour</td>
</tr>
<tr>
<td>G15/10</td>
<td>15mm</td>
<td>Half hour</td>
</tr>
<tr>
<td>G20/10</td>
<td>20mm</td>
<td>One hour</td>
</tr>
<tr>
<td>G23/10</td>
<td>23mm</td>
<td>One hour</td>
</tr>
</tbody>
</table>

ENVIROSTRIP

DESCRIPTION
An L-shaped plastic (black, brown, cream, or white) strip 12mm x 12mm x 2200mm with rubber fin seals, offering an effective acoustic, draught, smoke, and weather seal that will accommodate the movement of the door. Quick and easy to apply. A fire seal version is available, giving up to 30 minutes integrity in a fire.

USE
Fitted into the rebate of a door or window frame. Self-adhesive backing for ease of fixing, with maximum adhesion achieved after 72 hours in situ. For extra security, additional panel pin fixing may be employed if desired. This low-cost seal is ideal for public housing projects by councils and housing associations, to be fitted on all internal and external doors in apartments and houses, in positions where it will not be damaged.

PERFORMANCE
ENVIROSTRIP/F, with intumescent material fitted, was tested to BS476 Part 22 (1987) and achieved an integrity of 30 minutes. It also has acoustic properties for airborne sound.

ORDERING REFERENCES:
| ENVIROSTRIP  | (state colour required) |
| ENVIROSTRIP/F | (fire-rated version) |
GLAZING BEAD SYSTEM FOR FIRE DOORS AND SCREENS

DESCRIPTION
A complete glazing system consisting of 2100mm long wooden beads (with bolection moulding if required) treated with Envirograf® clear intumescent coating. Circular glazing beads are also available. Standard finishes include sapele and pine (others available to order)

USE
Ideal for doors and screens. The beads can be painted or varnished, and they are supplied with appropriately-sized fixing pins or screws for fixing at 200mm intervals along the length.

PERFORMANCE
This product was used in a number of fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of over 45 minutes (10mm thick hardwood and 15mm thick softwood) and over 68 minutes (25mm hardwood).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Straight</th>
<th>Bead Size</th>
<th>To Suit</th>
<th>Wood Type</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/G10</td>
<td>10mm</td>
<td>44mm doors</td>
<td>hard</td>
<td>30 minutes</td>
</tr>
<tr>
<td>30/G15</td>
<td>15mm</td>
<td>44mm doors</td>
<td>soft</td>
<td>30 minutes</td>
</tr>
<tr>
<td>60/G25/44</td>
<td>25mm</td>
<td>44mm doors</td>
<td>hard</td>
<td>60 minutes</td>
</tr>
<tr>
<td>60/G25/54</td>
<td>25mm</td>
<td>54mm doors</td>
<td>hard</td>
<td>60 minutes</td>
</tr>
</tbody>
</table>

Circular

| C4/30/G10 | 10mm | 400mm diam | hard | 30 minutes |
| C5/30/G10 | 10mm | 500mm diam | hard | 30 minutes |
| C4/60/G25 | 25mm | 400mm diam | hard | 60 minutes |
| C5/60/G25 | 25mm | 500mm diam | hard | 60 minutes |

Add suffix /L if bolection moulding (lip) is required

FIRE PROTECTION COATING FOR PVC ELECTRICAL CABLES FOR INTERNAL AND EXTERNAL USE

DESCRIPTION
A white odourless coating applied by brush or spray, and available in 1 litre, 2½ litre, and 5 litre tubs (larger quantities available). Each litre covers approximately 1m² of bunched cables or approximately 20m of 25mm diameter cable. If required, the coating can be coloured.

USE
This Envirograf® coating is used for protection of plastic-covered electrical cables, giving a longer period of operation in a fire. It inhibits PVC fumes in a fire, and does not insulate or have any harmful effect on working cables. Dries in approx. 1 hour. When dry, Envirograf® cable coating is flexible, and it will move without cracking, making it ideal for crane cables, elevator cables, mains cables, and buildings where elevators are required for evacuation.

PERFORMANCE
This product was used to protect cables exposed to the furnace conditions of BS476 Part 22 (1987). Throughout the 97 minutes of testing, the cables continued to carry current. Another test on cable trays achieved an integrity of 4 hours. Also tested to the European standard EN1363-1 (2000), achieving 2 hours of fire protection.

ORDERING REFERENCES:

| EP/C |

The illustration on the right shows this product reacting during exposure to flame
FIRE PROTECTION COATING FOR GLASS FIBRE AND PVC

DESCRIPTION
A virtually odourless clear or white coating with coverage of approximately 4m² per litre, available in 1 litre, 2½ litre, and 5 litre tubs (larger quantities available). Other colours available.

USE
Used on plastic and glass fibre, such as the internal section of glass fibre boats, cable housings, engine housings, and the internal side of glass fibre sheeting.

ORDERING REFERENCES:
EP/GC State finish (clear or white)

DOUBLE-SIDED SELF-ADHESIVE TAPE

DESCRIPTION
This Envirograf® product is a specially-formulated rubber-based double-sided tape that has very high adhesion and easy-peel backing, available in 5mm, 9mm, 12mm, 15mm, 19mm, 25mm, and 30mm widths, supplied in rolls of 50m. It has a ‘curing’ time of 48 hours.

USE
The tape can be used in many applications, even when fire resistance is not an issue.

ORDERING REFERENCES:
D 5 5mm wide  D19 19mm wide
D 9 9mm wide  D25 25mm wide
D12 12mm wide D30 30mm wide
D15 15mm wide All supplied in 50m rolls
DESCRIPTION

Envirograf® smooth-finish intumescent paints system for application by brush, roller, or spray.

USE

Envirograf® steel protection coatings can be applied over existing paint after removal of any loose particles and washing down. Can also be applied to aluminium for fire protection. For areas of high humidity such as swimming pool areas or external areas, a chlorinated rubber coating can be applied (this can be clear or coloured, as shown above).

PERFORMANCE

This product has been subjected to a series of tests in accordance with the procedures and criteria of BS476 Part 20 (1987), showing that it can offer protection to structural steel for up to 90 minutes, and it has been tested when applied over multiple layers of existing paint, achieving protection of 150 minutes. These coatings have also been tested to BS476 Part 22 (1987) on aluminium with Granada Windows (achieving 38 minutes of fire protection) and again on aluminium with Wessex Medical lifts (achieving 49 minutes of fire protection).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Colour</th>
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</thead>
<tbody>
<tr>
<td>EP/FS/P</td>
<td>Primer for internal coating</td>
<td>Red</td>
</tr>
<tr>
<td>EP/FS/XP</td>
<td>Two-part primer for external coating</td>
<td>Grey</td>
</tr>
<tr>
<td>EP/FS/IN</td>
<td>Intumescent fire protection coating</td>
<td>White</td>
</tr>
<tr>
<td>EP/FS/TCW</td>
<td>Protective top coat for internal use</td>
<td>Any BS/RAL Colour</td>
</tr>
<tr>
<td></td>
<td>(water-based)</td>
<td></td>
</tr>
<tr>
<td>EP/FS/TCE</td>
<td>Protective top coat for external use</td>
<td>Any BS/RAL Colour</td>
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<tr>
<td></td>
<td>(acrylic resin)</td>
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</tbody>
</table>

Always refer to the new Envirograf® coatings booklet when specifying. Coverage depends on the surface to which it is being applied. To ensure that you apply the correct loading of intumescent paint to the metal, contact the Technical Department for advice.
FIREPROOF PAPER FOR UPGRADING LATH/PLASTER CEILINGS/WALLS GIVING IN EXCESS OF ONE HOUR FIRE PROTECTION

DESCRIPTION
This is a 1000mm wide fire protection material (S/CEILING), applied in the same manner as wallpaper, but using Envirograf® adhesive type CA/N. Also available with bonded firecard 920mm wide (S/CP/CARD).

USE
Apply to existing lath-and-plaster ceilings and walls, to upgrade them to 60 minutes of fire protection. The plaster must be well adhered to the laths, and any cracks can be filled with Envirograf® Product 61 (intumescent stopper). All previous distemper and paper must be removed before application of the Envirograf® fire protection material. If the surface is porous, it is advisable to apply Envirograf® Product 93 (stabilising and bonding liquid) in order to seal the surface. Decorative cornices can be painted with Envirograf® Product 105 (smooth-finish intumescent coating for lath-and-plaster and plasterboard). In the event of plaster being loose from the laths on a ceiling, Envirograf® Product 53 (under-floor fire barrier) can be utilised to provide fire protection.

PERFORMANCE
This product has undergone several fire resistance tests employing the general procedures and criteria of BS476 Part 21 (1987), achieving 90 minutes of insulation and integrity.

ORDERING REFERENCES:
S/CEILING Fireproof Material
S/CP/CARD Fireproof Material with bonded firecard
CA/N Ceramic Adhesive
See Product 93 (Stabond) for bonding and sealing fluid

PATENTED
FLEXIBLE FIRE PROTECTION BAGS FOR DOCUMENTS ETC AND METAL FIRE PROTECTION BOXES TO HOLD BUILDING PLANS FOR FIRE OFFICERS, TO COMPLY WITH UK RRO REQUIREMENTS

FLEXIBLE BAG
A flexible glass cloth bag impregnated with Envirograf® fire protection coating, made in many sizes to suit paper documents and folders. The bag can be placed inside a standard filing cabinet. Protects documents for up to 40 minutes in a fire (up to 60 minutes if the bag is placed in a filing cabinet). Bags can also be used for computer disks and video tape.

METAL BOX
A metal box with intumescent fire protection glass cloth bag, to hold your building plans for the fire brigade and your RRO Report according to the 2006 UK requirements. The box is fitted with a lock. Would suit a reception area or with a fitted alarm for external use to deter vandals.

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Ref / External Measurements</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
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</thead>
<tbody>
<tr>
<td>Document Case</td>
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<td></td>
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<tr>
<td>ES/DC 30</td>
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<td>110mm</td>
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<td>Video Cassette Case</td>
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<td>Computer Disk Case</td>
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<td>240mm</td>
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<td>SPB/EXT*</td>
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</tr>
<tr>
<td>*Various lock and alarm combinations are available (see price list)</td>
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<td></td>
<td></td>
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<tr>
<td>Internal Building Plan Case (incorporating inner document case)</td>
<td>306mm</td>
<td>308mm</td>
<td>150mm</td>
</tr>
</tbody>
</table>
FIREPROOF COATINGS FOR SLABS

DESCRIPTION
A white intumescent coating for application to RW6 rock fibre slabs and non-fibrous slabs (as applied to Envirograf® Products 4 and 5). Supplied in 1 litre, 2½ litres, and 5 litres (other quantities available).

USE
Apply the Envirograf® coating by brush or trowel to either high density RW6 rock fibre slabs or Envirograf® Product 41 (high density fireproof sponge) to provide extra fire protection.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving an integrity of 4 hours. Also tested to European Standard EN1363-1 (2000).

ORDERING REFERENCES:
CS/W Intumescent Coating (White)

WELDING BLANKETS AND PADS

DESCRIPTION
Easy to handle, non-asbestos welding pads 200mm x 300mm withstanding temperatures of up to 1200ºC. For welders and plumbers when joining pipes with heat, protecting walls/wood.

USE
The welding pads are used behind blow lamps for flame protection to walls, pipes, and other fixtures. The welding blankets have fixing eyelets, so that they can be hung or fitted around areas that need protection from welding flames and splashes. Both the pads and the blankets are fibre-free, making them suitable for use in hospital sterile areas, etc.

ORDERING REFERENCES:
ES/WP1 Welding Pad 200mm x 300mm
ES/WC1 Welding Blanket 1m x 950mm
ES/WC2 Welding Blanket 2m x 950mm
ES/WC3 Welding Blanket 2m x 1850mm
Other sizes available to order
SOFFIT BOARD INTUMESCENT VENTILATORS
Essential for Loft Conversions – Stops Flame Penetration

DESCRIPTION
Intumescent metal ventilation grilles to fit new or to replace plastic ventilation grilles, designed to prevent external flames and hot gases from entering the roof space and spreading fire.

USE
Envirograf® soffit board ventilators are circular or rectangular grilles containing intumescent material that seals the vent openings in the event of a fire, to protect the roof space from flames and hot gases that may enter from broken or open windows etc below the soffit board. Otherwise, flames could burn through plastic soffit vents and enter the roof space, catching the roof felt alight and spreading the fire to loft rooms in use as bedrooms or play rooms. This Envirograf® product is absolutely essential in loft conversions and for use over windows in the dining room, kitchen, and lounge areas.

PERFORMANCE
This product underwent a fire resistance test employing the general principles and criteria of BS476 Part 22 (1987), achieving an integrity of 66 minutes.

ORDERING REFERENCES:
ES/SV/C Circular 82mm overall diameter for 68mm diameter hole
ES/SV/R Rectangular 72mm x 215mm overall for 47mm x 215mm hole
Other sizes available to order
DESCRIPTION
A fire/smoke protection curtain, complete with a control panel which can be either wired into an existing fire alarm system or smoke detector circuit or operate independently with a heat or smoke detector. A battery backup system can be supplied to operate the system in case of electrical failure. Industrial/domestic use, such as counters, conveyor belts, reception areas, etc. The frame is powder-coated white as standard, but it can be coloured. The curtain roller is motorised. The impregnated silicon curtain cloth can be kept clean by wiping with a damp cloth.

USE
The Envirograf® Product 90 fire and smoke curtain can be fitted inside an opening or it can be surface-mounted in front of an opening. It will not obstruct the normal use of the opening, but the curtain will close in a fire. The curtain can also be used to lower onto a staircase or conveyor belt. The control unit can be wired into an existing fire alarm system or smoke detector circuit or it can operate independently with a heat or smoke detector.

PERFORMANCE
The complete product and the curtain material were tested to BS476 Part 22 (1987), achieving 80 minutes of fire protection. An insulated version was tested and achieved 91 minutes integrity and insulation.

ORDERING
This product is made to order.
BOARD FOR PROTECTION OF STEEL

DESCRIPTION
This is a non-fibrous lightweight 6mm thick white board measuring 1000x1200mm. It can be cut easily with a sharp knife, and it can be faced with decorative laminate or painted.

USE
Fire protection of steelwork and metal ducting. Board is cut to size and adhered to the metal using Enviroleaf® Product 47 (board adhesive/sealant), which can also be used for filling the joints. There is virtually no waste as offcuts are adhered into the webs, as shown above.

PERFORMANCE
Tested to BS476 Part 22 (1987), achieving an integrity and insulation of 104 minutes.

ORDERING REFERENCES:
STB/91

FIRE RETARDANT COATING FOR TIMBER

DESCRIPTION
A water-based clear or white coating for internal/external application by brush, roller or spray. Achieved Class 0/Class 1 protection with two applications at 12-15m² per litre. Coverage on the first coat may vary according to the density and type of timber. UV protection is available.

USE
Can be used on bamboo, chipboard, decorative laminates, furniture, plywood, MDF, melamine, timber, etc. ES/VFR can be applied first and then be coated over with a range of coatings. If using QVFR externally, a top coat is required to seal the flame retardant layer. See separate coatings booklet for more details and colour charts.

PERFORMANCE
VFR coatings have had numerous tests on many surfaces and over coated surfaces to meet BS476 Part 6 (1989) Spread of Flame and BS476 Part 7 (1989) Spread of Flame, and this coating system now complies with Classification B/S1/d0 of European Standard EN13501 Parts EN13823 (2002) single burn test (SBI) and EN11925-2 (2002) ignitability.

ORDERING REFERENCES:
Reference Coating Based on Int/Ext Finishes
QVFR/C Clear protection Water Both S
QVFR/W White protection Water Both S
ES/VFR/C Clear protection Water Both S
ES/VFR/W White protection Water Both S
ES/VFR/P Primer Water Both –
AEC White acrylic top coat Water Internal SG

A range of top coats is available. Please see new data sheet for full details. Finishes: S=satin, SG=semi-gloss)
STABOND STABILISING BONDING/SEALING LIQUID

DESCRIPTION
Bonding/sealing liquid for porous surfaces such as plaster ceilings/walls (to seal the surface over old flaky plaster or new plaster) and to seal wood when using Product 38 door upgrade.

USE
For sealing distempered, emulsioned, or porous ceilings/walls. Good for sealing prior to using Envirograf® Product 38 (TCA thixotropic contact adhesive as used in door upgrade kits), Product 92 (clear coating), Product 96 (textured coating), or Product 105 (EP/CP paint for plasterboard). See data sheet for use with Product 84 (intumescent paper).

ORDERING REFERENCES:
Stabond

FIRE-RESISTANT TEXTURED FINISH FOR UPGRADING 9mm AND 12½mm PLASTERBOARD TO ONE HOUR OF FIRE PROTECTION

DESCRIPTION
A white or coloured two-application, fire-resistant textured finish coating system for upgrading 9mm and 12½mm plasterboard and lath-and-plaster to one hour integrity and insulation, maintaining load bearing capacity.

USE
All ceiling/wall paper must be removed. This product can be applied over existing paint. If the plaster is porous, apply one coat of Envirograf® Product 93 (Stabond) bonding/sealing liquid first. Envirograf® Product 96 (AB textured coating) is applied in two separate applications. The first coat is similar to Envirograf® Product 105 (EP/CP) and is applied like emulsion paint at 8m² per litre. The second coat is a thicker coating that is applied by brush and then combed or stippled for a textured finish. Both are water-based coatings. When dry, any external emulsion or undercoat and gloss paint can be applied. AB textured coating is flexible coating, allowing for movement on the floor above.

PERFORMANCE
Tested to BS476 Parts 20, 22, and 23 (1987), applied to plaster-coated 9mm thick plasterboard nailed to a timber-stud partition. The treated partition system achieved a fire resistance (insulation and integrity) of 71 minutes. Tested to BS476 Part 21 (1987), applied to 12½mm thick plasterboard beneath a loaded timber floor, achieving a fire resistance of 61 minutes (insulation, integrity, and load-bearing capacity). Also tested to BS476 Part 21 on a lath-and-plaster ceiling, achieving 63 minutes integrity and insulation.

ORDERING REFERENCES:
AB Textured Coating for 9mm and 12½mm Plasterboard (white)
Coverage approximately 3m² per litre
Other colours are available
AEC Acrylic Emulsion Coating (semi-gloss top coat ONLY)
INTUMESCENT DOOR STOP FOR FIRE AND SMOKE PROTECTION

DESCRIPTION
A brown or white plastic door stop including intumescent fire seal and brush or rubber smoke seal, designed to upgrade normal hollow-core doors and to replace existing wooden door stops. Can be fitted with acoustic seals which also serve as draught and smoke seals.

USE
Can be used for new installations, as a combined surface-mounted doorstop, brush smoke seal, and intumescent fire seal. Alternatively, the intumescent section can be routed into the door frame lining, with a rebate of 3mm deep x 50mm wide. The standard smoke seal supplied is a 5mm brush. Rubber seals may also be used, as indicated below (all of these seals offer draught and smoke protection). This product should be fitted to the most vulnerable doors (including non-fire-rated doors), such as dining room and kitchen. The smoke seal helps to ensure a fire escape route free from smoke, and the intumescent seals the gap between the door and frame to inhibit the spread of fire.

PERFORMANCE
This product was used in a number of fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of over 68 minutes on a fire door. Another test to BS476 Part 22 (1987) on a standard door (i.e. not fire-rated) achieved an integrity of 18 minutes, offering valuable escape protection.

ORDERING REFERENCES:
DSU/S  Single Door set comprising 2 x 2100mm and 1 x 1050mm pieces
DSU/D  Double Door set comprising 3 x 2100mm and 1 ES/25/HS pieces
State door stop colour and smoke seal required (see below)

DOOR STOP FOR ACOUSTIC, DRAUGHT, AND SMOKE PROTECTION

DESCRIPTION
A brown or white plastic door stop including a smoke seal to replace existing wooden door stops. Can be fitted with acoustic seals which also serve as draught and smoke seals.

USE
Used as a surface-mounted door stop. The standard smoke seal supplied is a 5mm brush. Rubber seals may also be used, as indicated below (all of these seals offer acoustic, draught and smoke protection). The smoke seal helps to ensure a fire escape route free from smoke.

ORDERING REFERENCES:
SDSTOP  Single Door set comprising 2 x 2100mm and 1 x 1050mm pieces
DDSTOP  Double Door set comprising 3 x 2100mm and 1 ES/25/HS pieces
State door stop colour and smoke seal required (see below)

<table>
<thead>
<tr>
<th>Type</th>
<th>Seal A</th>
<th>Seal B</th>
<th>Seal S</th>
<th>Seal T</th>
<th>Seal V</th>
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<tr>
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<td>Use For:</td>
<td>Single-action Doors</td>
<td>All Doors</td>
<td>Double-Action Doors</td>
<td>Cushioning</td>
<td>Single-action Doors</td>
</tr>
</tbody>
</table>

Important: 1-1½mm of the brush or rubber seal is held within the holder. Brush with fin is always ½mm higher than regular brush. Make allowance for this when specifying.
**REBATED INTUMESCENT FIRE & FIRE/SMOKE SEALS IN TWO TYPES**

**DESCRIPTION**
Envirograf® Product 100 is available in two types of rebated seal (standard and new push-fit). These can be supplied with or without smoke seals and in a range of sizes and two lengths (1050mm and 2100mm). They are fitted with self-adhesive backing to adhere into the rebate. Smoke seals can be either brush or rubber. NB: as smoke can kill before fire, it is always best to fit intumescent seals with smoke seals.

**Save time with the new push-fit type of seal**, designed with ease of maintenance in mind. Decorators can remove seals for decorating and replace them when finished. Joiners can remove the seals from tightly-fitting doors to plane the door edge and cut the rebate deeper. Rebating examples: both the 10x4mm 30 minutes seal and the 15x4mm 60 minutes seal can have a rebate up to 6mm deep. Although the seal is a push-fit type, it cannot be pulled out except from the top or bottom. Adhesive is not needed. Intumescent seals are supplied with a plain front and fire and smoke seals can have brush or rubber seals.

**USE**
Used for fitting to doors, door frames, and windows. Once fitted, the plastic facing of the seals can be painted, although the brush or rubber smoke seal must NOT be painted.

**PERFORMANCE**
This product has been tested in accordance with BS476 Part 23 (1987). An integrity of up to 69 minutes was achieved. Product 100 has also been included in many successful tests with BS476 Parts 20 and 22 (1987), achieving an integrity of 40 and 68 minutes protection. Also tested to European Standard EN1634-1 (2000) for 68 minutes.

**ORDERING REFERENCES:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Fire Seal</th>
<th>Smoke Seal</th>
<th>Depth</th>
<th>Width</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS/12</td>
<td>Intumescent</td>
<td>None</td>
<td>4mm</td>
<td>12mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>IS/12/S</td>
<td>Intumescent</td>
<td>Brush</td>
<td>4mm</td>
<td>12mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
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<td>None</td>
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<td>10mm</td>
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</tr>
<tr>
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<td>Intumescent</td>
<td>Brush</td>
<td>3mm</td>
<td>10mm</td>
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<tr>
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<tr>
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<td>Intumescent</td>
<td>Brush</td>
<td>4mm</td>
<td>10mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>IS/14/AS</td>
<td>Intumescent</td>
<td>Angled Rubber</td>
<td>4mm</td>
<td>15mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>IS/14/SS</td>
<td>Intumescent</td>
<td>Straight Rubber</td>
<td>4mm</td>
<td>10mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
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<td>3mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>IS/15/S</td>
<td>Intumescent</td>
<td>Brush</td>
<td>3mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>IS/15A/S</td>
<td>Intumescent</td>
<td>Brush</td>
<td>4mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>IS/24</td>
<td>Intumescent</td>
<td>None</td>
<td>4mm</td>
<td>20mm</td>
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</tr>
<tr>
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<td>Intumescent</td>
<td>Brush</td>
<td>4mm</td>
<td>20mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>IS/24/AS</td>
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<td>Angled Rubber</td>
<td>4mm</td>
<td>20mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>IS/24/SS</td>
<td>Intumescent</td>
<td>Straight Rubber</td>
<td>4mm</td>
<td>20mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>CIS14/30</td>
<td>Intumescent</td>
<td>None</td>
<td>5mm</td>
<td>10mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>CIS14/330</td>
<td>Intumescent</td>
<td>Brush Seal</td>
<td>5mm</td>
<td>10mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>CIS14/330</td>
<td>Intumescent</td>
<td>Straight Rubber</td>
<td>5mm</td>
<td>10mm</td>
<td>Up to 30 minutes</td>
</tr>
<tr>
<td>CIS15/60</td>
<td>Intumescent</td>
<td>None</td>
<td>5mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>CIS15/60</td>
<td>Intumescent</td>
<td>Brush Seal</td>
<td>5mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
<tr>
<td>CIS15/600</td>
<td>Intumescent</td>
<td>Straight Rubber</td>
<td>5mm</td>
<td>15mm</td>
<td>Up to 60 minutes</td>
</tr>
</tbody>
</table>

Brush smoke seals, where fitted, are 5mm standard (black, brown, grey, or white) Standard range holders are brown or white (other colours may be available – please ask)

NB: Approximately 1-1½mm of seal is contained inside the holder. Brush with fin is ½mm higher than brush with no fin.

**Fitting Requirements for Product 100**

<table>
<thead>
<tr>
<th>Single</th>
<th>Double</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Single door" /></td>
<td><img src="image2" alt="Double door" /></td>
</tr>
</tbody>
</table>

**SHOWS**
Shows position of door seals fitted to door or frame

The new push-fit seal is not easy to take out, except by pulling at the top or bottom (for maintenance). Ideal for use when repainting a door or planing a door edge. Rebate 5-6mm deep.
FIRE PROTECTION CABINETS

DESCRIPTION
Envirograf® filing cabinet fire protection covers are units into which existing cabinets may be fitted, to give up to one hour of fire protection to the contents of the cabinets (audio tapes, computer diskettes, documents, drawings, etc). Access to the inner cabinet is by front or top openings that may be locked by padlock on the hasp and staple arrangements fitted, or other locks may be fitted to order. There are also smaller versions that are designed to contain highly inflammable items such as fireworks and lighter fuel, enabling shop-keepers to comply with regulations on fire safety in shop premises. Cabinets can be made with shelves etc.

USE
Can be used for protection of valuable or highly inflammable materials that are currently stored in cabinets not specifically designed to offer any fire protection to their contents. This can be required by insurance policies and legislation. Tested to BS476 Part 22 (1987).

ORDERING REFERENCES:
This product is made to order

INTUMESCENT MATERIAL TO FIT UNDER DOOR EDGING

DESCRIPTION
Envirograf® self-adhesive 2mm thick intumescent material to fit under hardwood door edging as a fire protection seal (ES/UL). The material is protected from damage by the hardwood door edging and expands in a fire to seal the gaps between door and frame in a fire. Also supplied with hardwood door edging (ES/DE/UL) to suit door edges 42-44mm and 52-54mm.

USE
The strip is fitted to the underside of the hardwood lip on the edges of the door.

PERFORMANCE
This product was included in a fire test conducted to the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of up to 60 minutes.

ORDERING REFERENCES:
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Protection Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES/UL/25</td>
<td>To suit doors 25 mm thick</td>
<td>30 minutes</td>
</tr>
<tr>
<td>ES/UL/30</td>
<td>To suit doors 44 mm thick</td>
<td>30 or 60 minutes</td>
</tr>
<tr>
<td>ES/UL/34</td>
<td>To suit doors 50 mm thick</td>
<td>60 minutes</td>
</tr>
<tr>
<td>ES/DE/UL/30</td>
<td>To suit doors 42-44 mm thick</td>
<td>30 or 60 minutes</td>
</tr>
<tr>
<td>ES/DE/UL/34</td>
<td>To suit doors 52-54 mm thick</td>
<td>60 minutes</td>
</tr>
</tbody>
</table>
DESCRIPTION
This is a water-based clear or white intumescent coating kit for upgrading raised-and-fielded doors to fire door status. Each kit contains ½ litre of primer, 1½ litres of intumescent coating, and ½ litre of top coat – enough to cover an area of 6m² (depending on the size of the door, this may be enough material to cover three to four sides of single doors). Kits can be coloured to BS or RAL colours.

USE
Only the risk side needs to be coated on room doors and both sides on doors leading onto corridors or at the top of stairs. There is no need to remove any existing paints, varnish, or gold leaf. This product can be applied directly over all previous coatings after normal surface washing. Fire tests have been carried out on specific panels and doors. Ask an Envirograf® Representative to call and view the relevant door before ordering or application of product, in order to ensure that the treatment is appropriate for the type of door, especially oak.

PERFORMANCE
Doors must have a minimum 6mm thick fielded area and 28mm minimum thickness stiles and rails. Tested to BS476 Part 22 (1987), in which one door achieved an integrity in excess of 44 minutes and another door achieved an integrity in excess of 57 minutes.

ORDERING REFERENCES:
- ES/RFC/CM Clear matt finish kit
- ES/RFC/CS Clear satin finish kit
- ES/RFC/WM* White matt finish kit
- ES/RFC/WS* White satin finish kit
- ES/RFC/WG* White gloss finish kit
*Can be coloured to BS and RAL colours

Treatment labels are supplied, to be fitted to the door spine to declare to Building Control / Fire Officers that upgrade treatment has been performed.
DESCRIPTION
A white or coloured aqueous dispersion coating, offering protection to plasterboard and lath-and-plaster ceilings of various thicknesses. It develops a microporous intumescent layer with a smooth decorative finish. When attacked by fire, the intumescent material protects the coated area’s integrity and insulation for a period in excess of one hour. Envirograf® Product 92 (ES/AEC acrylic emulsion coating) can be applied over the smooth coating.

USE
Apply to 9mm or 12½mm thick plasterboard or lath-and-plaster ceilings in two coats at 8m² per litre per coat, which upgrades the substrates to give fire protection in excess of 60 minutes. For a smooth finish, apply by brush, roller, or spray. For a stippled finish, apply with a short-pile roller. For textured finish, see Envirograf® Product 96. This product can be painted over with any external emulsion or undercoat and gloss paint.

PERFORMANCE
This product underwent a fire resistance test in accordance with BS476 Parts 20, 22, and 23 (1987), applied to plaster-coated 9mm thick plasterboard and nailed to a timber-stud partition. The treated partition system achieved a fire resistance (insulation and integrity) of 71 minutes. The product also underwent a fire resistance test in accordance with BS476 Part 21 (1987), applied to 12½mm thick plasterboard beneath a loaded timber floor. The timber floor system achieved a fire resistance of 61 minutes (insulation, integrity, and load-bearing capacity). Also tested to BS476 Part 21 load-bearing lath-and-plaster ceiling for 60 minutes (insulation, integrity, and load-bearing capacity).

ORDERING REFERENCES:
EP/CP Smooth Coating for 9mm and 12½mm Plasterboard
AEC Acrylic Emulsion Coating (semi-gloss top coat ONLY)
DESCRIPTION
The Envirograf® curved ramp and seal system for door thresholds comprises two distinct high tensile plastic mouldings, to be used together or separately. Component DT is a curved ramp moulding containing a carpet pile threshold seal, and component DTE is a curved ramp moulding without the carpet pile threshold seal to meet the carpeted moulding on the other side of the door threshold (or to be used independently to bridge the different levels of non-carpeted and carpeted floors). The gently-curved mouldings are designed with wheelchair users in mind, enabling them to pass over a door threshold or from carpeted areas to non-carpeted areas with ease. Mouldings are available in black, brown, or grey, and the plastic-backed slot-in carpet pile threshold seal is available in black only. Mouldings are screwed into place, and application of flexible mastic sealant to the underside of the mouldings ensures a water-tight seal. This an acoustic, draught, and weather seal made from fireproof material.

USE
When used in combination with other Envirograf® seals on the door, the Envirograf® DT/DTE seal set offers acoustic, draught, and weather protection in situations where a threshold seal is required on a flat surface, particularly where there is no weather bar. In situations where a draught and weather seal is needed for an exterior door, only one section is used in conjunction with an Envirograf® door seal. The seal is suitable for internal or external use in care homes, domestic homes, hospitals, offices, and public buildings, as well as industrial use in factories and warehouses, complying with Document M of UK Building Regulations for disabled people’s entrances, with seals as below. The seals are not affected by sea air or water.

ORDERING REFERENCES:
DT  Single threshold section housing carpet seal
DTE Single extension piece
State colour of moulding required
ENVIROGRAF® Product 107 door thresholds are designed for flat thresholds with heavy traffic (such as bikes, fork-lift trucks, prams, trolleys, wheelchairs, etc). They are designed with wheelchair users in mind, enabling them to pass over a door threshold or from carpeted areas to non-carpeted areas with ease. Made from high tensile fireproof plastic mouldings, enabling them to be used in conjunction with fire doors. Mouldings are available in black, brown, or grey, with the plastic-backed slot-in carpet pile threshold seal is available in black only. The product is sufficiently durable to take heavy corridor and entrance traffic without impairing the effectiveness of the carpet pile seal, therefore maintaining good acoustic, draught, and weather sealing, particularly in conjunction with other Envirograf® seals such as Products 73, 74, 75, 119, and 120 on the door. Mouldings are screwed into place, and application of flexible mastic sealant to the underside of the moulding ensures a water-tight seal.

USE
When used in combination with other Envirograf® seals on the door, the Envirograf® IT seal offers acoustic, draught, and weather protection in situations where a threshold seal is required on a flat surface, particularly where there is no weather bar. In situations where a draught and weather seal is needed for an exterior door, only one section is used in conjunction with an Envirograf® door seal. Suitable for internal or external use in care homes, domestic homes, hospitals, offices, and public buildings, as well as industrial use in factories and warehouses, complying with Document M of UK Building Regulations for disabled people's building entrances, with seals as below. The seals are not affected by sea air or water.

ORDERING REFERENCES:
IT Single threshold section housing carpet seal
State colour of moulding required
**DESCRIPTION**

This economical Envirograf® product is a brown or white durable plastic trim, designed to give hard-wearing physical protection to door edges (similar to that provided by Envirograf® Product 70 hardwood door edging) and fire and smoke protection by means of the recessed Envirograf® Product 100 intumescent fire/smoke seal 10x4mm (42-46mm doors) or 20x4mm (52-56mm doors) contained within the door edge trim. It could extend the life of the door to which it is fitted, thus avoiding an expensive replacement. The product is supplied in two sizes, with a flexible region along the length to enable it to be separated into two equal pieces to suit door thicknesses 42-46mm and 52-56mm. The door edge protective trim can be fitted rebated on new doors or it can be surface-mounted on old or damaged doors.

**USE**

Ideally suited to application in areas where there is a high risk of damage to door edges, such as airports, care homes, factories, hospitals, industrial buildings, sheltered housing, etc. This product can be rebated or surface-mounted on the door edge. The door edge protective trim simply slips over the door edge in one piece (or in two pieces for thicker doors: separate into two pieces by rocking along the central line until the parts separate). Peel off the backing paper of the self-adhesive strip on the inside edges of the trim. Slip the door trim piece(s) over the door edge and fix with panel pins through the grooved section (not through the smoke seal). If fitting an Envirograf® Product 100 fire and smoke seal, remove the backing paper from the self-adhesive strip on the back of the seal holder, then press it into the rebate in the door edge protective trim.

**PERFORMANCE**

The door edge trim has been tested to BS476 Part 23 (1987), achieving integrity up to 69 minutes. The associated Envirograf® Product 100 seal has also been tested to BS476 Parts 20 and 22 (1987), achieving an integrity of 46 minutes and 68 minutes. Also tested to the European Standard EN1634-1 (2000).

**ORDERING REFERENCES:**

| DET44/N | For rebating into new doors 42-46mm thick |
| DET54/N | For rebating into new doors 52-56mm thick |
| DET44  | For surface-mounting onto old/damaged doors 42-46mm thick |
| DET54  | For surface-mounting onto old/damaged doors 52-56mm thick |

State the colour of door edge protector moulding required

State the colour of the seal holder and the seal type and size required

<table>
<thead>
<tr>
<th>10x4 or 20x4mm</th>
<th>5/7/10mm</th>
<th>5/7/9mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holder</td>
<td>Seal B</td>
<td>Seal S</td>
</tr>
</tbody>
</table>

**PRODUCT 108 FIXING DETAILS**

- **DOOR TRIM**
- **PANEL PINS**
- **FIRE AND SMOKE SEAL**

This product can be fully rebated into the door edge.

**IMPORTANT:**

1-1½mm of the brush or rubber seal is held within the holder. Brush with fin is always ½mm higher than without. Make allowances when specifying. The fire/smoke seal holder sizes are 10x4mm or 20x4mm to fit into the door protector.
DESCRIPTION
Envirograf® PGC is a rigid brown or white plastic glazing channel with intumescent fire protection available in heights of 10mm (30 minutes) and 15mm (60 minutes).

USE
Designed for areas where noise and vibration are common. The rubber channel absorbs sound and accommodates small movements more efficiently than standard glazing fixtures, and it offers fire protection. Use with the intumescent for non-insulated glass such as 6 mm wired, ceramic, or laminated glass; or without the intumescent on insulated glass.

PERFORMANCE
This product has been included in tests in accordance with the general principles and criteria of BS476 Part 22 (1987), achieving 40 minutes and 66 minutes of fire protection (10mm high and 22mm high respectively).

ORDERING REFERENCES:
- PGC30 10mm high 30 minutes of fire protection
- PGC60 15mm high 60 minutes of fire protection
- PGC = rigid glazing channel to fit 5-7mm thick glass

Hardwood/softwood beading can be supplied to house the channel.
FIROBLOK® INTUMESCENT SLEEVES FOR SERVICES

DESCRIPTION
Envirograf® Product 110 Firoblok® sleeves are designed to protect cables and metal/plastic pipes and ventilation trunking passing through fire-rated ceilings, floors, or walls made from block, brick, or concrete, and hollow plasterboard floors and walls. They are flexible, allowing contraction and expansion of water pipes, and give protection from corrosion caused by close contact with cement, cement blocks, plaster, and other corrosive building materials. A silver-coloured reinforced covering contains the intumescent material so that it expands inwards and crushes into melting PVC pipes, trunking, ducts, etc in the heat of a fire. They also absorb heat from fire and help prevent metal pipes, services, and armoured cables from overheating. The sleeves are supplied in 100mm, 150mm, 200mm, or 500mm lengths. They can be easily cut with a sharp knife and they should be installed level with the surrounding ceiling, floor, or wall. In the case of a fire, the intumescent material will expand, sealing the gap between the cable or pipe and its surrounding ceiling or wall. See also Product 7 (intumescent wraps) and Product 25 (cable protection system for cavity walls).

USE
For services passing through fire-rated ceilings and walls (especially where contraction and expansion allowance is required, e.g. water/gas pipes). Also for use in brick, block, concrete, and hollow floors or walls.

PERFORMANCE
This product underwent a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of 130 minutes in solid walls, 67 minutes in hollow walls, and 4 hours in concrete/ block ceilings/walls. Also tested to EN1366-3 (2005), EN1363-1 (2000), and EN13501-2 (2004).

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>FOR CABLES/PIPES/TRUNKING</th>
<th>Reference</th>
<th>Int Diam</th>
<th>Ext Diam</th>
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<tbody>
<tr>
<td>IWS 25</td>
<td>25mm</td>
<td>35mm</td>
<td></td>
</tr>
<tr>
<td>IWS 33</td>
<td>33mm</td>
<td>45mm</td>
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</tr>
<tr>
<td>IWS 40</td>
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</tr>
<tr>
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<td>IWS 60</td>
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<td>80mm</td>
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<td>IWS 90</td>
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<tr>
<td>IWS215</td>
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</table>

See price list for full range.

<table>
<thead>
<tr>
<th>FOR VENTILATION DUCTING</th>
<th>Reference</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>110V/15</td>
<td>110mm x 54mm</td>
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</tr>
<tr>
<td>110V/26</td>
<td>204mm x 60mm</td>
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</tr>
<tr>
<td>110V/29</td>
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<td>110V/22</td>
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<td>110V/32</td>
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<tr>
<td>110V/67</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>FOR PLASTIC TRUNKING</th>
<th>Reference</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>110T/11</td>
<td>25mm x 25mm</td>
<td></td>
</tr>
<tr>
<td>110T/22</td>
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<td>110T/33</td>
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<td>110T/32</td>
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<td>110T/42</td>
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<td>110T/43</td>
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<tr>
<td>110T/44</td>
<td>100mm x 115mm</td>
<td></td>
</tr>
</tbody>
</table>

Types 110V and 110T listed opposite are available in 100mm, 150mm, 200mm, and 500mm lengths.
DESCRIPTION
Wherever electrical services and plumbing pipes (whether they are plastic or steel) pass through fire-rated walls or ceilings, they must be protected by an intumescent sleeve, collar, or wrap.

USE
Firoblok® electrical conduit sleeves are made in the same sizes as 20mm and 25mm conduit, so they fit into sockets or BESA boxes. Firoblok® sleeves are made to fit around all sizes of plastic trunking and cable trays. In a fire, they will tightly crush/seal around all the cables. Firoblok® sleeves are used for all sizes of PVC, UPVC, steel, and copper pipes from 15mm to 600mm. In a fire, Fireblok® sleeves completely seal all PVC pipes with a wall thickness up to 25mm and they have been tested for thick UPVC pipes for nuclear power stations.

Firoblok® sleeves, when used on steel, cast iron, or copper pipes, cool the pipe down, and they act as an insulator between the sides of a firewall or between floors and ceilings. They are a very important product to prevent fire penetrating into adjacent rooms.

Firoblok® sleeves can be fitted along the length of plastic or steel pipes, and on cables (such as armoured cables feeding hospitals) and pipes (such as chemical pipe) giving fire protection and insulation. The protected cables will not overheat.

PERFORMANCE

ORDERING REFERENCES:

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>110C/20</td>
<td>20mm Firoblok® conduit sleeve</td>
<td>300mm</td>
</tr>
<tr>
<td>110C/25</td>
<td>25mm Firoblok® conduit sleeve</td>
<td>300mm</td>
</tr>
</tbody>
</table>

Packs of 12 pieces are also available.
COATED CERAMIC QUILT FOR STEEL

DESCRIPTION
A durable intumescent quilt, designed for fire protection around angled steel, RSJs, steel tubes, trunking, ventilation ducting, and other steel items. Must be overlapped by 50mm and secured by adhesive. CQT is 6mm thick and 1220mm wide, and CQB is 6mm thick and available in 50mm, 75mm, 100mm, and 150mm widths.

USE
Wrap around the items using Envirograf® Product 46 (intumescent adhesive) for adhesion, and secure with galvanised wire over the 50mm overlapped ends to finish. The sheet material (CQS) must be overlapped 50mm at walls or joints.

PERFORMANCE
Tested on steel in accordance with the general principles and criteria of BS476 Part 20 (1987), achieving 87 minutes of integrity.

ORDERING REFERENCES:
- CQT/6 6mm thick x 1220mm x 8m roll
- CQB/6/ 50 6mm thick x 50mm x 8m roll
- CQB/6/ 75 6mm thick x 75mm x 8m roll
- CQB/6/100 6mm thick x 100mm x 8m roll
- CQB/6/150 6mm thick x 150mm x 8m roll

HIGH-TEMP SILICONE TAPE SEAL FOR STOVES, BOILERS, ETC

DESCRIPTION
Envirograf® SIL/T is a self-adhesive silicone tape suitable for sealing in high-temperature applications.

USE
This product can be used on brick, block, and plasterboard walls and chimney breasts, where the temperature is likely to exceed 50°C, particularly around a hole-in-the-wall fire or stove. The area to be treated must be clean and dry.

ORDERING REFERENCES:
- SIL/T30 Silicone Tape 30mm wide x 5m long roll (black or red)
- SIL/T75 Silicone Tape 75mm wide x 5m long roll (black or red)
**SMOKE CURTAIN**

**DESCRIPTION**
The curtain is an impregnated glass cloth, sealed with an intumescent coating that will withstand temperatures of up to 1200ºC, providing smoke protection and BS476 Class 0 and Class 1 protection. Supplied 1200mm wide. Envirograf® smoke curtain is a very robust, hard-wearing material. Envirograf® Product 117 can also be supplied as a rolled curtain unit supported by an electric motor. When activated, the curtain will drop and (if required) can be re-rolled via a switch.

**USE**
For shopping malls and other large areas that need smoke protection and/or BS476 Class 0/Class 1 spread of flame protection. The curtain can be cut with a sharp knife or scissors, and adhesive is supplied so that a 25mm to 30mm overlap can be made, allowing the curtain to be made up to any size required. When fixing the curtain, use Envirograf® FB/C metal straps and intumescent plugs.

**ORDERING REFERENCES:**
- SC State width and length required
- Metal hangers and weights can be supplied

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**PROTECTOR FOR ETCHED OR STAINED GLASS**

**DESCRIPTION**
A 2100mm long metal trim in standard finishes of brown or white (other colours available). The protector is complete with pre-fixed intumescent seals and is applied to the framed area on the inside of the room with the matching screws supplied.

**USE**
The protector holds clear wired glass, laminated glass, or ceramic fire protection glass behind decorative glazing, thereby giving 30 or 60 minutes of fire protection, leaving the decorative glass undisturbed. Supplied in 2100mm lengths. Can also be supplied in curved sections (e.g. arches). When fitted, the protector is unobtrusive and would not normally be noticed.

**ORDERING REFERENCES:**
- GP State the colour finish required
**Description**

A metal frame that houses an Envirograf® Product 16 economy intumescent box, designed for standard cat and dog flaps (these are not supplied). Your standard door flap fits into our unit. Standard finishes are brown, grey, and white. The fitted intumescent and PVC-faced sponge is sufficiently smooth for a cat and dog to pass through. It will not seal or expand until the fire has reached 120°C at the door (approximately 4 minutes into the fire). The product can be made to fit a brick wall of any thickness.

**Use**

For fire-rated doors in apartments and houses. In a fire, the intumescent material would expand, filling the hole and maintaining the integrity of the fire door. This Envirograf® product is simple to fit.

**Performance**

Tested to BS476 Part 22 (1987) and prEN1366-3, achieving 68 minutes protection.

**Ordering References:**

<table>
<thead>
<tr>
<th>Ref</th>
<th>To Suit Staywell Type</th>
<th>Staywell Aperture</th>
<th>FP Aperture</th>
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<tr>
<td>FP01</td>
<td>Series 300 / 400 / 500</td>
<td>168mm x 175 mm</td>
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<td>Series 600 (Small)</td>
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<td>Series 600 (Medium)</td>
<td>348mm x 225 mm</td>
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<td>FP04</td>
<td>Series 600 (Large)</td>
<td>451mm x 277 mm</td>
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<td>FP05</td>
<td>Series 600 (X Large)</td>
<td>642mm x 366 mm</td>
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<tr>
<td>FP06</td>
<td>Series 700 (Small)</td>
<td>180mm x 155 mm</td>
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<tr>
<td>FP07</td>
<td>Series 700 (Medium)</td>
<td>265mm x 230 mm</td>
<td>325mm x 290 mm</td>
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<tr>
<td>FP08</td>
<td>Series 700 (Large)</td>
<td>354mm x 306 mm</td>
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<td>FP09</td>
<td>Series 800</td>
<td>429mm x 291 mm</td>
<td>499mm x 361 mm</td>
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<tr>
<td>FP10</td>
<td>Series 900</td>
<td>169mm x 169 mm</td>
<td>229mm x 229 mm</td>
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</tbody>
</table>

To suit Staywell brand flaps. Others can be made to order.
WEATHER BAR SEALS

DESCRIPTION
A PVC seal which can be used in conjunction with Envirograf® Products 106, 107, and 120 threshold seals. Available in black, brown, or grey.

USE
The seal is either screwed to both interior and exterior faces of the door (or the interior of the door if Product 120 is screwed to the exterior of the door) and it offers acoustic, draught, and weather protection to the flat threshold seal of Products 106 and 107.

ORDERING REFERENCES:
ACS Weather bar seal
State colour required – black, brown, or grey

WEATHER BOARD

DESCRIPTION
A PVC seal which can be used in conjunction with Envirograf® Products 106, 107, and 119 threshold seals. The product can have a straight twin rubber blade to seal against strong wind and rain conditions. Available in black, brown, or grey.

USE
The seal is screwed to the exterior of the door face, and offers draught and weather protection to the flat threshold seal of Products 106 and 107.

ORDERING REFERENCES:
TWB/A Weather bar plus rubber angled seal (6mm or 9mm)
TWB/S Weather bar plus rubber straight seal (5mm, 7mm, or 9mm)
TWB/B Weather bar plus brush seal (7mm, 10mm, 12mm, or 15mm)
State colour required – black, brown, or grey
123

FIRE PROTECTION CARDBOARD

DESCRIPTION
White cardboard with fire protection properties

USE
This product is ideal for use in doctors’ surgeries and hospitals, and in the sign industry for silk screen printing, painting by hand, packaging, exhibition displays, etc.

PERFORMANCE
Fire protection cardboard has been tested to BS476 Class 0 and Class 1 (Spread of Flame) classification. Also tested at WIRA to BS476 Parts 6 and 7.

ORDERING REFERENCES:
FPB3  320g/m² density 920mm wide (state length required in metres)

125

FIRE BARRIER CURTAIN FOR ROOF VOIDS

DESCRIPTION
A fire barrier curtain for use where insulation is not an important criterion. Available in 1200mm widths.

USE
For loft and suspended ceiling separation. All joints must overlap by 50mm and be adhered using Envirograf® Product 57 fireproof adhesive. Service penetration can be passed through. See data sheet for fixing applications.

PERFORMANCE
This product has been subjected to a fire test in accordance with BS476 Part 22 (1987) achieving an integrity of 39 minutes and insulation of 3 minutes. Although the insulation failed at 3 minutes, the radiant heat did not reach through to ignite anything on the other side.

ORDERING REFERENCES:
VB3012  Barrier curtain for roof voids 1200mm wide
ProtecTive covers for works of art and other valuables

Description
Envirograf® covers for framed works of art and other valuable objects are designed to protect them from the effects of smoke and fire, and the consequent handling and water damage caused during fire-fighting, giving time for withdrawal to a safe place.

Use
The Envirograf® art covers are easy to fit by slipping the top retaining flap over the top of the picture frame and then fastening with elastic straps at the two lower corners. The covers can be labelled to suit your referencing purposes.

Performance
This product gives approximately 20 minutes of fire protection, allowing time to extinguish the fire and strategic withdrawal of the works of art in order of their value.

Ordering References:
ARTCOVER Please contact the technical department before ordering
EXTERNAL ROOF FIRE BREAK MEMBRANE
For use under roofing tiles and slates

DESCRIPTION
A foil-clad intumescent membrane section, made from a non-porous material, to form a fire break between two roofs of adjoining properties. Gives full fire protection from one roof to the next. Unaffected by moisture. Easily fitted with clout nails to roof trusses. This product is reinforced with wire mesh in order to support itself when hanging over a wall.

PERFORMANCE
This product has been subjected to a fire test in accordance with BS476 Part 20/22 (1987) achieving an integrity of 72 minutes.

ORDERING REFERENCES:
FBM State the width required and the height between the top side of the wall and the underside of slates or tiles when ordering.
**DESCRIPTION**

An intumescent-coated glass-cloth 1220mm wide and fireproof sponge barrier 1000mm wide, designed to form a fire break between two roofs of adjoining properties. Unaffected by moisture. Installed internally within the loft space.

**USE**

Ideal for use in terraced and semi-detached houses, or areas with large spans of roof space. This product is economical and it can be fitted quickly and easily by one or two people, working inside the roof space. Adhesive, fixing battens, FB70 barrier cloth, and fire-proof sponge are supplied for easy fixing.

**PERFORMANCE**

Recent tests undertaken on this product have indicated that unprotected roofs collapse in 39 minutes, whereas the FB70 fire protection barrier curtain has been tested to 81 minutes integrity, holding back the fire from the adjoining roofs, thus giving valuable time to allow the fire department to arrive on site.

**ORDERING REFERENCES:**

IRB State length required
DESCRIPTION
The Envirograf® personal door viewer has integral fire resistance and a cutout size of only 229mm high and 368mm wide. It comprises an internal sliding shutter plate with observation slots that can be moved sideways to align with observation slots on the external frame. The door viewer is made from strong zintec sheet metal (20 SWG or 0.92mm thick) finished in black, bronze, brown, or white powder coating (other colours are available to order). The unique glass plate allows for discreet observation and is supplied with 6mm thick armoured glass. The armoured glass is unbreakable and gives extra security to domestic apartments and houses, detention rooms in police stations, mental institutes, prisons, etc. Complete fire protection is offered whether the viewer shutter is in the open or closed position. Available in 30 or 60 minute ratings.

USE
The viewer offers a greater panoramic view than is available through spy hole viewers, and it has the advantage of being able to be kept in the open position without compromising the integrity of the door in a fire. It is ideal for monitoring patients in hospitals, viewing occupants in conference rooms, meeting rooms, prisons, banks and other financial institutions, domestic residences, etc.

PERFORMANCE
Tested to BS476 Part 22 (1987) for 66 minutes.

ORDERING REFERENCES:
DV30  DV + Beading set for 44mm doors - 30min fire rating - softwood
DV60  DV + Beading set for 54mm doors - 60min fire rating - hardwood

Other viewers can be made to order to suit doors of other thicknesses
The product can be fitted with a locking device – state if required
### Description

**Envirofrax® white glazing tape** is non-intumescent, fireproof, anti-vibration, and suitable for fire-rated glass in steel doors, windows, and partitions where intumescent properties are not required. It is 3mm thick, available in three widths, and supplied in 15m long rolls with self-adhesive backing. Can be coloured if required.

**Ordering References:**
- GT15: 15mm wide, 3mm thick, 15m roll
- GT20: 20mm wide, 3mm thick, 15m roll
- GT25: 25mm wide, 3mm thick, 15m roll

---

### Description

**Envirograf® acoustic sponge strips** are for impact acoustic protection between floors, fitted between floor boards and the top of joists. Black acoustic sponge (ARS) 9mm thick x 10mm wide is supplied in 10m rolls, with a self-adhesive backing strip for quick and easy application. A composite strip (ARC) is also available, comprising grey acoustic sponge 10mm thick x 50mm wide x 2.5m onto which two parallel strips of 6mm high black acoustic sponge are adhered, with a self-adhesive backing on grey sponge to facilitate quick and easy installation.

**Use**

Impact acoustic protection between floor boards and joists has been a considerable problem in the construction industry. The industry-suggested 25mm mineral fibre strip offering 60 to 100kg/m³ has been a way of dealing with the sound transmission problem. However, the new Envirograf® ARS strips have only 9mm uncompressed thickness and are fitted with self-adhesive backing. When used in parallel on both of the top edges of joists, they offer a vast improvement in density of 180kg/m³.

**Ordering References:**
- ARS: Black anti-vibration sponge supplied in a roll of 10m
- ARC: Composite grey/black acoustic strips 2.5m long

---

### Description

**Envirofrax® non-intumescent glazing tape** is non-intumescent, fireproof, anti-vibration, and suitable for fire-rated glass in steel doors, windows, and partitions where intumescent properties are not required. It is 3mm thick, available in three widths, and supplied in 15m long rolls with self-adhesive backing. Can be coloured if required.

**Ordering References:**
- GT15: 15mm wide, 3mm thick, 15m roll
- GT20: 20mm wide, 3mm thick, 15m roll
- GT25: 25mm wide, 3mm thick, 15m roll
**AVG/F ACOUSTIC/FIREPROOF VENTILATION GRILLE**

**DESCRIPTION**
The Environgraf® AVG/F fireproof ventilation grille consists of two parts (one for each side of the opening) and the internal cavity of both sections is filled with micro-acoustic material, with intumescent strips on the two long sides of the risk side opening to provide fire resistance properties. The grille is 25mm deep and in two sizes (200x200mm and 400x200mm). Various finishes are available. The ventilation area (m²) is about 0.4 x (slot length in metres).

**USE**
The grille can be used on partition walls and doors, to prevent fire passing from one room to another. To accommodate the grille, the ventilation aperture must be at least 10mm larger than the height between the upper and lower opposing slot limits (the slots should be vertically opposite each other when fitted).

**PERFORMANCE**
Tested to European Standards and approved in accordance with the general principles of NEN6069, offering up to 60 minutes of fire protection plus sound absorption.

**ORDERING REFERENCES:**
AVG/F State size: 200x200mm or 400x200mm

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**AVG ACOUSTIC VENTILATION GRILLE**

**DESCRIPTION**
The new Environgraf® AVG acoustic vent grille contains micro-acoustic material to reduce the passage of sound from one room to another. It is available in a range of sizes and finishes (including anodised or natural aluminium). It is made from extruded aluminium profiles and consists of two sections with a 35mm wide edge. Both sections have U-shaped profiles containing micro-acoustic material offering sound absorption properties, and the inside edges of the grille are covered with acoustic foam. The grilles can be produced in lengths up to 1500mm. Owing to the fixed profile system, the profile/gap interval must be a multiple of 85mm up to a maximum 935mm (from 1 to 11 vanes). The area of ventilation available is about 29% of the total grille plate area.

**USE**
The grille can be easily mounted with screws onto a door or wall.

**PERFORMANCE**
Maximum sound absorption at a minimal air-resistance (20 Pa) is achieved at an air speed no greater than 1.9m/s, calculated on the open passage of the grille, with measurement of the sound insulation according to world standard ISO140-3 (1995).

**ORDERING REFERENCES:**
AVG State size and finish required
DESCRIPTION
Kitchens are places of high fire risk. Efficient protection is vital to safeguard both personnel and visitors. Top of the fire protection list is the cooking area, which needs special attention in the event of unexpected fire. The cooker hood extraction unit provides the necessary ventilation outlet for unwanted fumes and smoke but, in many establishments, extraction units are connected by ducting that passes through the building and is a potential route for a fire transmission. The new Envirograf® CHG cooker hood grille is made with wave-patterned lightweight aluminium baffles and a stainless steel frame. It can be produced in a range of different sizes to suit a wide range of ducting systems. To facilitate cleaning, the grille unit can be removed for easy cleaning in mild detergent solution.

USE
Kitchens in hotels, restaurants, hospitals, care homes, community centres, etc.

PERFORMANCE
The specially-designed Envirograf® ventilation grille unit with its internal baffles can help to restrict the passage of fire into ducting.

ORDERING REFERENCES:
CHG Please ask for a quotation
The new Envirograf® Product 136 intumescent rainscreen protection (IRS) is designed to be used between glass curtain walling and concrete, glass, or timber walls. It consists of fire-rated sponge strips with an attached high-expansion intumescent strip covered in foil on the top and back, plus metal fixing brackets in three shapes with screw holes pre-drilled. Depending on the gap required between the concrete, glass, or timber wall and the glass curtain wall, the thickness of the intumescent material may vary. For gaps up to 50mm, 3mm thick intumescent strips are fitted; for gaps over 50mm, 4mm thick intumescent strips are fitted; for gaps over 150mm, 8mm thick intumescent strips are fitted. Supplied in 1m long strips with four metal brackets fitted per strip, available in six configurations to suit the required application. All configurations are shown in the illustrations above and below.
DESCRIPTION
A multi-purpose high-tack spray adhesive, suitable for bonding and laminating cardboard, fabrics, fibrous materials such as Envirograf® Products 56 & 57 fire barriers, foam products, hessian, insulation materials, etc to themselves and to metal, masonry, wood, etc.

ORDERING REFERENCES:
HI-TAK  500ml aerosol can
IDEAL FOR APPLYING CERAMIC TILES TO WALLS, BRICK, BLOCK, CONCRETE, PLASTERBOARD, CHIPBOARD AND WOOD-RELATED PRODUCTS. CAN BE USED IN SHOWERS AND DAMP AREAS.

MAINTAINS THE INTEGRITY OF THE BOARD AND THE SUBSTRATE IT IS APPLIED TO, BECAUSE NO NAIL OR SCREW HOLES ARE NEEDED.

ENVIROGRIP® FIRE-RESISTANT ADHESIVE

HOLDS PLASTERBOARD TO ALL TYPES OF BRICK, BLOCK, CONCRETE & TIMBER

IDEAL FOR APPLYING CERAMIC TILES TO WALLS, BRICK, BLOCK, CONCRETE, PLASTERBOARD, CHIPBOARD AND WOOD-RELATED PRODUCTS. CAN BE USED IN SHOWERS AND DAMP AREAS.

M AINTAIN S THE INTEGRITY OF THE BOARD AND THE SUBSTRATE IT IS APPLIED TO, BECAUSE NO NAIL OR SCREW HOLES ARE NEEDED.

1. APPLY AND LEAVE FOR 3 MINUTES
2. PRESS BOARD TO WALL OR TIMBER STUDDING. ENVIROGRIP® ALLOWS FOR MOVEMENT OF BOARD ON CONTACT. CAN BE PULLED OFF IF REQUIRED, RE-POSITIONED AND RE-ADHERED.
3. CAN BE PLASTERED AFTER 2 HOURS

INTUMESCENT SYSTEMS LTD
ENVIROGRAF HOUSE, BARFRESTONE, DOVER, KENT, CT15 7JG
PHONE: 01304 822505 – FAX: 01304 822566
EMAIL: SALES@ENVIROGRAF.COM

ENVIRONMENTAL ECO-FRIENDLY

XYZ

INSUGLASS® XYZ MULTI-PROTECTION COATING FOR GLASS

D E S C R I P T I O N

A clear coating for glass or plastics materials. It is a two-part aqueous mix with a coverage of 8m²/kg and a top protective film. The film offers the advantage of protection against glass fragmentation in the event of impact damage to the glass or explosion etc plus extra insulation to the building. Almost 98% of harmful UV rays are absorbed by the protective film.

P E R F O R M A N C E

Tested on wired clear glass measuring 980mm x 1500mm, achieving 67 minutes integrity and 50 minutes insulation. Also tested on 6mm standard clear glass, achieving 60 minutes integrity and 30 minutes insulation.

O R D E R I N G R E F E R E N C E S:

XYZ Insuglass® 2-part glass coating system
CAF Clear protective film 1200mm wide (state length in metres)
DESCRIPTION
The new Envireflex® floor/roof insulation offers non-irritant acoustic/thermal insulation and fire protection material for application to new and existing floors and flat roofs and between rafters in loft conversions. The system allows free air movement, is moisture-resistant, and meets the requirements of Document C of UK Building Regulations for condensation. It is made to order, as dimensions between rafters and joists can vary. When using only 9mm thick plasterboard, it can give in excess of one hour fire protection and sound studio levels of acoustic protection. When used to insulate floors in loft areas, the ceiling below does not require a fire-rated upgrade, meeting the requirements of Document B of UK Building Regulations. ‘U’ values between 0.20W/m²K (truss) and 0.27W/m²K (floor). See data sheet for full details of options and fitting instructions.

USE
The components are fitted between the rafters or joists, resulting in minimal cutting on site and fast installation. Overlap joints are adhered with Envirograf® Product 46 (intumescent adhesive) and are fastened in place with a staple gun.

PERFORMANCE
Tested at BDA Keur in the Netherlands. Fire tested to BS476 Part 21 (1987), achieving 70 minutes of fire resistance. Tested for airborne and impact sound at Building Test Centre, meeting the requirements of Document E of UK Building Regulations.
**DESCRIPTION**

Firobond Ultra Adhesive (FUA) is a fire retardant, high performance laminating adhesive, specially developed for the bonding of mineral wool insulation to inorganic board materials, including magnesium oxide/cement boards, and laminated boards. All types of wood joists and wood rebated products MDF chipboard, plywood etc.

**USE**

This product is designed to produce a strong, durable bond for the manufacture of internal partition walls, modules, doors, and partitions; and for laminating all types of wood joints and wood-related products, such as MDF, chipboard, plywood, etc. It was also designed and developed to bond sponge and mineral wool to inorganic boards and magnesium oxide/cement boards; and to give a strong, durable bond for the assembly of fire doors and standard doors, partitioning, and any timber assembly used as a fire-rated product. Once cured, the bond will withstand high impact and impart stiffness to the bonded material. The fire retardant properties enable manufacturers to produce systems that can meet two hours fire protection specification.

Firobond Ultra Adhesive (FUA) is thixotropic, which facilitates easy application, and it is designed to minimise absorption into porous substrates. The product can be applied by an extrusion nozzle or bead head by a pump system for fast production rates. It is available in containers of ½kg, 1kg, 2½kg, 5kg, and 20kg.

Firobond Ultra Adhesive (FUA) should be applied to the board material at a coating rate of 100g/m² [10m²/kg] to 250g/m² [4m²/kg] depending on the porosity of the substrate. Mineral wool should be consolidated into the adhesive within 5 to 10 minutes. The panel should be constructed immediately and placed under pressure to consolidate the bond, thus ensuring pressure is applied evenly across the panel. Firobond Ultra Adhesive (FUA) can be applied to wood joints, used for applying Envirograf® intumescent paper, material, card, and veneers to wood, plywood etc. Also used to adhere veneers to MDF, plywood, etc, giving a bond which is fire-resistant.

Drying and Curing Times:
- Initial bond: 10 to 20 minutes
- Tack life: 10 minutes
- Full cure: within 24 hours

**ORDERING REFERENCES:**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>FUA/0.5</td>
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<td>5 kg</td>
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<td>FUA/20</td>
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DESCRIPTION
Loft extensions are now one of the most common methods of increasing living space in the domestic housing sector. UK Building Regulations offer clear guidance on the fire protection requirements specific to loft extension projects, and this often requires upgrading walls and ceilings to 30 or 60 minutes fire rating. The most common method of upgrading these surfaces to the required fire rating is to apply extra plasterboard, which includes skimming and decorating to finish, all at huge extra expense!

Envirograf® Loft-Fire Paint Plus has been developed specifically for loft extension projects. By simply applying a primer, then two coats of Loft-Fire Paint Plus, and finishing with Envirograf® acrylic emulsion coating (AEC) onto the existing plasterboard or lath-and-plaster ceilings or walls, you can achieve 60 minutes fire rating with no more extra plasterboard, skimming, or decorating! Loft-Fire Paint Plus will save hundreds, if not thousands of pounds on loft extension work, saving time and the inconvenience of skimming and redecorating usually required to upgrade the means of escape walls and ceiling areas.

USE
The skimmed plasterboard surface must be clean, dry, and free from dust, grease, and water-repellent surfaces. All wallpaper must be removed. Apply the Envirograf® EP/CP/P primer first. When dry, apply the Loft-Fire Paint Plus (allowing up to 90 minutes drying time between coats). Finish with the matt Envirograf® AEC acrylic emulsion coating.

EP/CP/P primer
This is a water-based clear primer for application before the EP/CP coating. Coverage: one coat at 14m² per litre.

Loft-Fire Paint Plus
This is a water-based intumescent coating. As soon as this coat has dried a protective topcoat must be applied. Allow to dry thoroughly. Coverage: two coats at 8m² per litre per coat (for 60 minutes fire rating)

AEC acrylic emulsion coating (matt finish)
Envirograf® matt acrylic emulsion coating (AEC) is a hard-wearing and flexible top coat. This coating is excellent for areas requiring high levels of durability and flexibility, where movement may occur. This coating has been specially-designed as a top coat for Loft-Fire Paint Plus. Coverage: two coats at 12m² per litre per coat.

ORDERING REFERENCES:
EP/CP/P primer
1 litre, 2½ litres, 5 litres

LFP (Loft-Fire Paint)
1 litre, 2½ litres, 5 litres

AEC (Acrylic Emulsion Coating)
1 litre, 2½ litres, 5 litres
ADVANTAGES

● Potential energy saving of up to 40W per unit
● Change to low energy long-lasting bulbs with major cost savings
● Easy to install adaptor
● Offers up to 66 minutes of fire protection
● Can upgrade existing downlighters to use low energy bulbs in 9W, 11W, 15W, and 20W ratings and BC or ES type holders

Current fire legislation requires effective fire safety systems for ceilings and floors in both commercial and private buildings. Downlighters, whilst offering an attractive lighting solution, can pose a real danger to the fire integrity of the building for two main reasons:

1. Holes are cut into the ceiling for the light units, compromising the fire resistance of the ceiling and, because lamp units can operate at extremely high temperatures, this presents an ignition risk which could cause a fire to start and spread.

2. Energy-saving has become a major priority for building owners and occupiers. Downlighters can require up to 50W per unit. Ceilings in many commercial buildings may contain a large number of this type of lamp, resulting in extremely high energy bills.

An Envirograf® retro-fitting adaptor has been developed to convert your existing downlighter fittings into low-energy units, potentially saving up to 40W per light, whilst simultaneously providing 66 minutes of fire protection.

ORDERING REFERENCES:

DA1 is supplied with a standard white lamp holder with an earth terminal
DA2 is supplied with a brass lamp holder including earth terminal

Add suffix /BC (bayonet cap) or /ES (Edison screw) to the reference for fitting type

When ordering, please specify the original light fitting's product name and code or send a sample of the fitting.
<table>
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<th>Product Description</th>
<th>Page</th>
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<tbody>
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<td>Intumescent Slabs, Blocks, Pillows, Mastics, &amp; Putties</td>
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<tr>
<td>1. Intumescent Fire &amp; Smoke Stop Pillows</td>
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<td>2. Intumescent Fire-Stop Blocks</td>
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<td>6. Fire Mortar</td>
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<td>63. Intumescent Cement Filler</td>
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