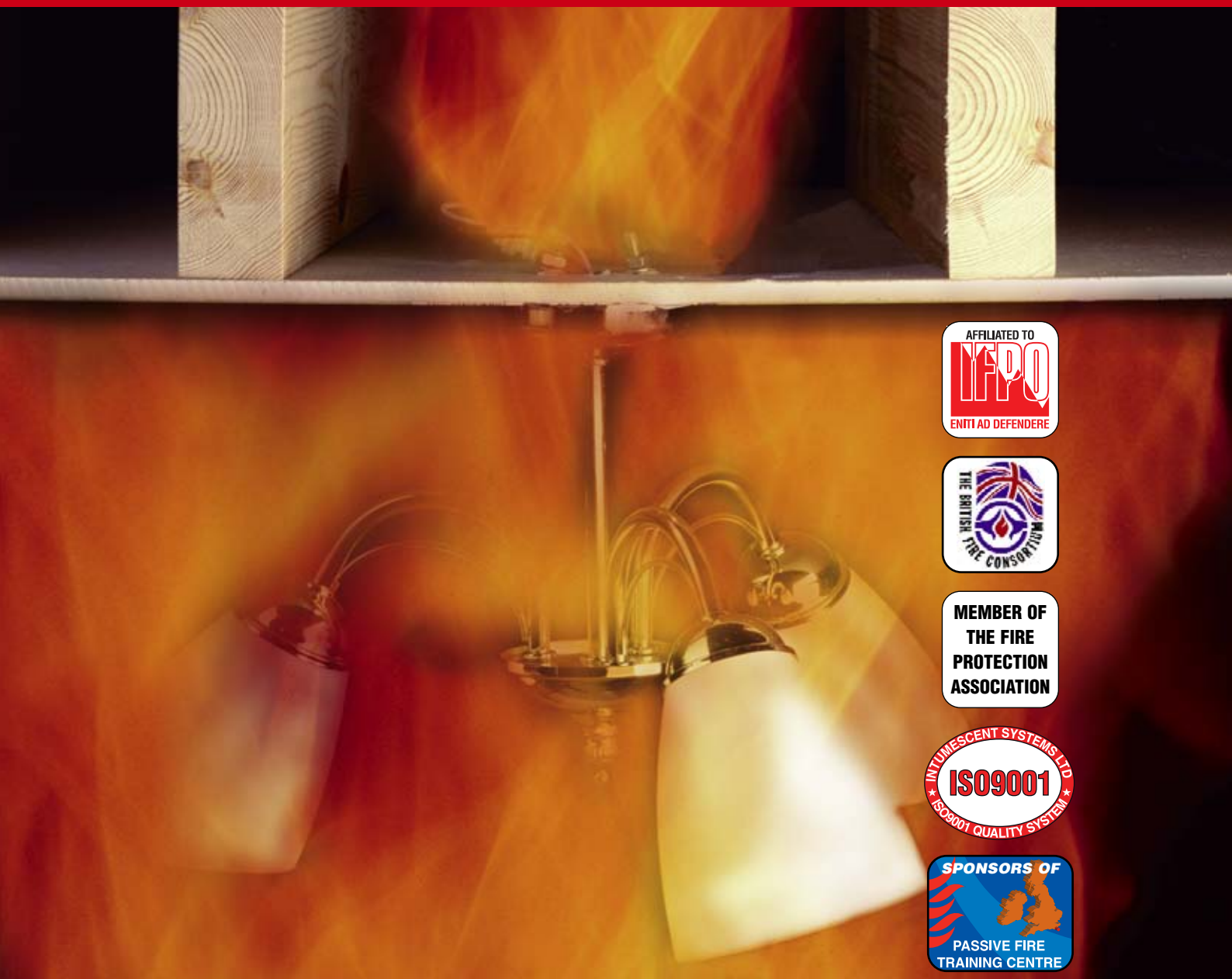
IS110D-02-2010

ENVIROGRAF®

FIRE PREVENTION PRODUCTS FOR ELECTRICIANS & PLUMBERS



AFFILIATED TO IFPO ENITI AD DEFENDERE

THE BRITISH FIRE CONSORTIUM

MEMBER OF THE FIRE PROTECTION ASSOCIATION

INTUMESCENT SYSTEMS LTD ISO9001 ISO9001 QUALITY SYSTEM

SPONSORS OF PASSIVE FIRE TRAINING CENTRE

THE IEE REGULATIONS STATE:–

"Where cables, conduits, ducts, trunking, or other items of wiring systems pass through walls, floors, roofs, or ceilings of a building, or any part of the hole that is left around the material, shall be made good to the same degree of fire resistance as that required for the element being passed through. Additionally, internal barriers that give the same degree of fire resistance shall be installed in conduits, trunking, ducting, busbars, and busbar trunking, where the walls, floors, ceilings, and roofs have a specified fire resistance".

MANY PRODUCTS TESTED TO 4 HOURS FIRE PROTECTION 4

Intumescent Systems Ltd, Envirograf House, Barfrestone, Dover, Kent, CT15 7JG, United Kingdom
Phone: +44 (0) 1 304 842 555 – Fax: +44 (0) 1 304 842 666 – Email: sales@envirograf.com – URL: www.envirograf.com

INTUMESCENT GASKETS FOR PVC & METAL ELECTRICAL OUTLET BOXES IN CEILINGS & WALLS

PRODUCT 30

PRODUCT APPLICATION

Envirograf® intumescent gaskets are essential in metal or plastic boxes where cables pass back through a wall. Gaskets must be fitted to all dry lining boxes in partition walls. Without these gaskets, fire can spread into the partition within 4 or 5 minutes. Where cables run through back-to-back boxes in brick or block walls, flames can pass through within 6 minutes, resulting in a wall or partition only having 6 minutes of fire integrity.

Gaskets for use inside metal or plastic boxes are made to the size of the box and come with self-adhesive fixing on the back. Once the backing paper has been peeled off the fixing strip, the gasket can be adhered to the inside of the box. Holes can be cut into the gasket with a sharp knife to receive cables, or the gasket can be cut to fit the back of the box if cables are already fitted (see **A**). Dry lining boxes in walls have two pads per box, made to size and adhered top and bottom (see **B**).

Ceiling rose boxes for plasterboard ceilings can be protected by means of an intumescent cover which folds up and is passed through the hole in the ceiling. A hole is then cut in the cover to receive the cables, which are then pulled through the cover, box, and ceiling before connecting the ceiling rose (see **C**). Acoustic protection covers are also available.

Ceiling rose gaskets to fit over the ceiling rose or hook plate should be fitted where more than two cables pass through the ceiling. A hole is made in the gasket through which the cables are passed. The backing paper of the self-adhesive fixing strip is then peeled off and the gasket is adhered to the ceiling. The pendant or light fitting can then be fitted (see **C**).

ORDERING REFERENCES

INTUMESCENT GASKETS

REF	DIMENSIONS	DEPTH
ABG33/2	75mm x 75mm	50mm
ABG44/2	100mm x 100mm	50mm
ABG44/4	100mm x 100mm	100mm
ABG64/2	150mm x 100mm	50mm
ABG66/2	150mm x 150mm	50mm
ABG66/4	150mm x 150mm	100mm
ABG99/2	225mm x 225mm	50mm
ABG99/4	225mm x 225mm	100mm
ABG1212/2	300mm x 300mm	50mm
ABG1212/4	300mm x 300mm	100mm

GASKETS FOR STANDARD METAL BOXES

REF	DESCRIPTION
BEG	For standard BESA boxes
DPG	For double metal boxes
SPG	For single metal boxes
CRG	For ceiling roses

COMPLIANCE WITH REGULATIONS

All of these Envirograf® products comply with the revised 17th edition of the IEE Regulations and Document B of the UK Building Regulations. These are the requirements:–

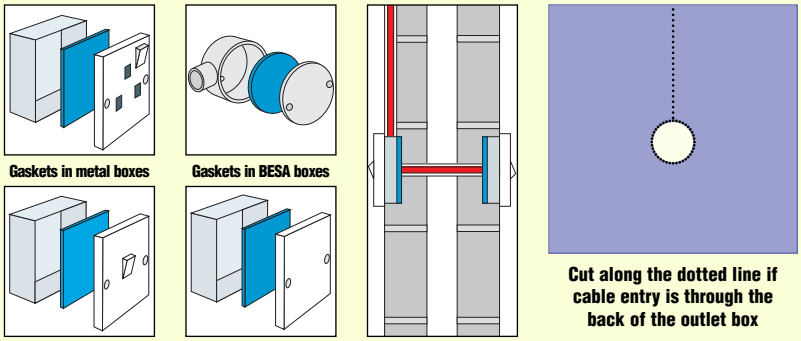
Where cables, conduits, trunking, or other items of a wiring system pass through ceilings, floors, roofs, or walls of a building, any part of the hole that is left around the electrical material shall be made good to the same degree of fire resistance as that required for the element being passed through. Additionally, internal barriers that give the same degree of fire resistance shall be installed in busbars, busbar trunking, conduits, ducting, socket and switch boxes, and trunkIng, where the ceilings, floors, roofs, and walls have a specified fire resistance.

METAL BOXES BACK TO BACK

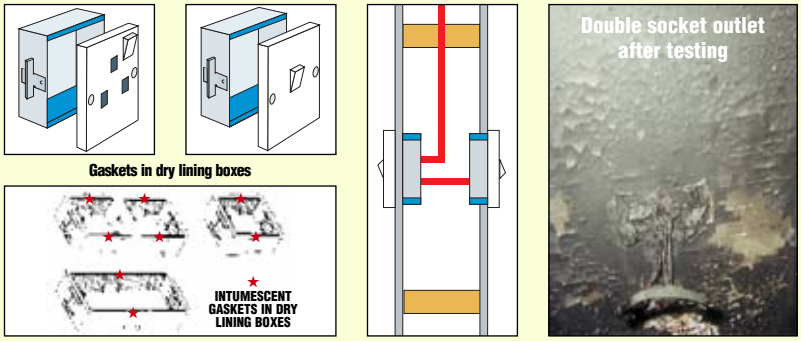
In rigorous tests at TRADA in a 225mm block wall, back-to-back metal boxes with switch and socket outlets without gaskets burnt through the wall in five minutes, showing how important gaskets are. Boxes fitted with intumescent gaskets in the same type of wall gave up to **four hours** integrity and insulation. Acoustic covers are also available.

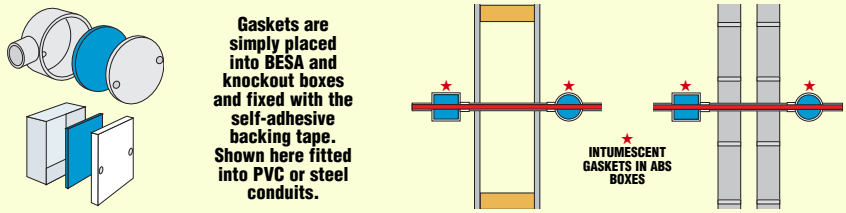
DON'T TAKE A CHANCE: YOU ARE LIABLE!

A: SOLUTIONS FOR BLOCK AND BRICK WALLS

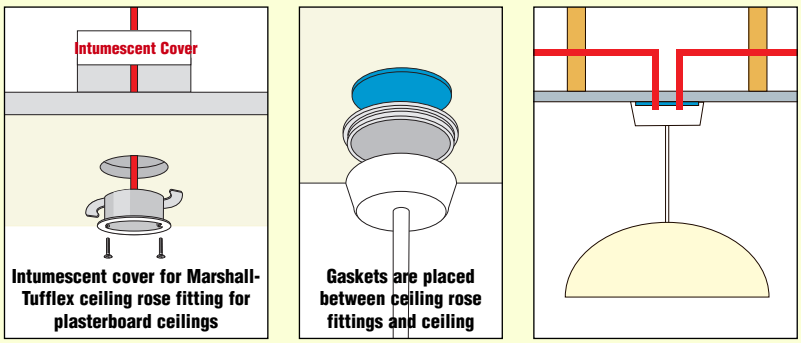


B: SOLUTIONS FOR PLASTERBOARD (DRY LINING) WALLS





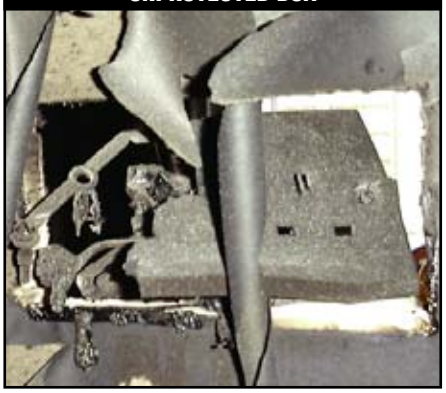
C: SOLUTIONS FOR PLASTERBOARD CEILINGS



DRY LINING BOXES WITH INTUMESCENT GASKETS: YOU ARE BREAKING THE LAW WITHOUT GASKETS!

PRODUCT 30

UNPROTECTED BOX

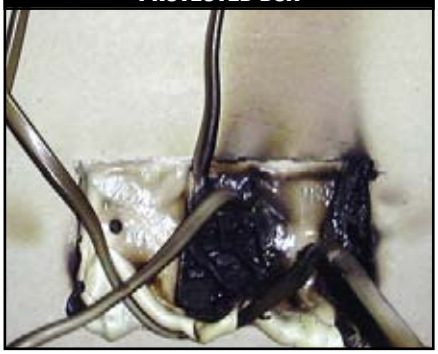


PROTECTION FITTED

PROTECTED BOX

UNPROTECTED BOX

PROTECTED BOX

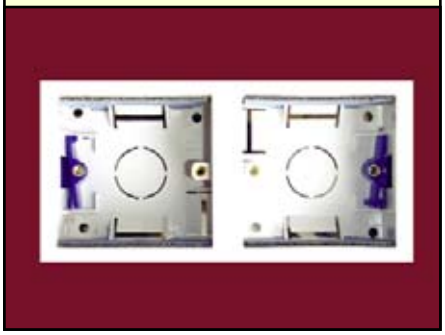


In the event of a fire, the cover plate of a socket, switch, or light fitting will sag and disintegrate, leaving a perfect escape route for a fire to travel up the cavity, into an adjoining room or ceiling. Every day, many electrical contractors, and building and design professionals are oblivious of their legal obligations to ensure that the properties they construct, manage, or refurbish comply with current standards and regulations. Acoustic protection covers are also available.

THE ABSENCE OF INTUMESCENT GASKETS BREAKS ALL REGULATIONS

In a recent test at the Building Test Centre, flames penetrated a partition rated 70 minutes in just **seven minutes**, causing a complete shutdown of the remainder of the test. With intumescent gaskets fitted, the same type of partition gave 70 minutes integrity and insulation at Chiltern/TRADA.

Also tested for 90 minutes to European Standard EN1364-1, NEN 6064, and EN1365-2.



PRODUCT APPLICATION

Envirograf® intumescent gaskets are essential in metal or plastic boxes where cables pass back through a wall. Gaskets must be fitted to all dry lining boxes in partition walls. Without these gaskets, fire can spread into the partition within four or five minutes. Where cables run through back-to-back boxes in brick or block walls, flames can pass through within 6 minutes, resulting in a wall or partition only having six minutes of fire integrity.

Gaskets for use inside metal or plastic boxes are made to the size of the box and come with self-adhesive fixing on the back. Once the backing paper has been peeled off the fixing strip, the gasket can be adhered to the inside of the box. Holes can be cut into the gasket with a sharp knife to receive cables, or the gasket can be cut to fit the back of the box if cables are already fitted (see **A** opposite). Dry lining boxes in walls have two pads per box, made to size and adhered top and bottom (see **B** opposite).

Ceiling rose boxes for plasterboard ceilings can be protected by means of an intumescent cover which folds up and is passed through the hole in the ceiling. A hole is then cut in the cover to receive the cables, which are then pulled through the cover, box, and ceiling before connecting the ceiling rose (see **C** opposite). Acoustic protection covers are also available.

Ceiling rose gaskets to fit over the ceiling rose or hook plate should be fitted where more than two cables pass through the ceiling. A hole is made in the gasket through which the cables are passed. The backing paper of the self-adhesive fixing strip is then peeled off and the gasket is adhered to the ceiling. The pendant or light fitting can then be fitted (see **C** opposite).

ORDERING REFERENCES

INTUMESCENT GASKETS AND COVERS (CONTINUED FROM THE PREVIOUS PAGE)

REF	DIMENSIONS	SET COMPRISES
SSB	Gasket set for single shallow box	2 gaskets per set
DSB	Gasket set for double shallow box	2 gaskets per set
SDB	Gasket set for single deep box	2 gaskets per set
DDB	Gasket set for double deep box	2 gaskets per set
TDB	Gasket set for twinned single deep box	4 gaskets per set
3DB	Gasket set for triple deep box	4 gaskets per set
MTC	Square intumescent cover for Marshall-Tufflex or similar dry-lining box	
MTC/A	Square acoustic and intumescent cover for Marshall-Tufflex or similar dry-lining box	

SHALLOW (35mm) OR DEEP (44mm) DRY LINING BOXES COMPLETE WITH FITTED INTUMESCENT GASKETS

REF	DESCRIPTION
GBOX/S	Single shallow box with fitted intumescent gasket
GBOX/D	Double shallow box with fitted intumescent gasket
GBOX/T	Twin shallow box with fitted intumescent gasket
GBOX/SD	Single deep box with fitted intumescent gasket
GBOX/DD	Double deep box with fitted intumescent gasket

ACOUSTIC PROTECTION COVERS

Tested at BTC in accordance with BS EN ISO 140-3 (1995) & rated in accordance with BS EN ISO 717/1 (1997) meeting acoustic criteria

PRODUCT 30

ACCEPTED BY 'ROBUST DETAILS'

SIZES AVAILABLE TO SUIT ALL BOXES

INTRODUCTION

Whether old or new, many buildings suffer from sound penetration through their walls. With the development of timber-framed houses, the problem of sound transmission in walls has worsened and needs to be addressed urgently. The new Envirograf® acoustic protection covers (shown above) are made from 15mm thick acoustic sponge and are designed to encase electrical outlet boxes in the wall cavity and insulate against airborne sound. The covers are available in single-gang, double-gang, and twin-gang versions.

QUICK AND EASY FITTING

The acoustic sponge covers can be used equally well in new installations and in refurbishment applications. To fit, pass the flexible acoustic sponge cover through the hole in the wall while holding the retaining cord to ensure the cover does not fall into the cavity (the cord can be cut off after the cover is fixed). Then secure the acoustic cover by pressing the supplied pins through the holes of the zintec metal retaining brackets and into the plasterboard. Push the cable into the electrical outlet box for connection and secured the outlet box in position.

PERFORMANCE

Tested 19-20/1/2004 at Building Test Centre (Ref: BTC13224A) in accordance with BS EN ISO 140-3 (1995) and rated in accordance with BS EN ISO 717/1 (1997) in a Gyproc twin-frame high-performance wall measuring 3.6m x 2.4m with 214mm internal depth. Acoustic covers comply with the requirements of 'Robust Details'.

DRY LINING BOXES, GASKETS, AND ACOUSTIC COVERS

Dry lining boxes are the perfect escape route for flames in a fire, because the front plate will sag and allow flames to travel along the path of the cables and into the cavity, to adjoining rooms and the floor above, increasing the risk to life and property. New Envirograf® dry lining boxes with pre-fitted intumescent gaskets expand in a fire and act as a fully-resistant fire barrier (see illustrations 1 to 5). Intumescent ceiling rose covers are also available (see illustration 6).

ACOUSTIC & FIRE PROTECTION COVERS

PRODUCT 30

FIRE RATED & ACOUSTIC SWITCH & SOCKET BOXES & CEILING ROSE COVERS GIVING TEST APPROVAL FOR 2 HOURS FIRE PROTECTION & ACOUSTIC PROTECTION TO ROBUST DETAILS & 17th EDITION IEE REGULATIONS TESTED IN ACCORDANCE WITH BS EN 1403 (1995) & RATED IN ACCORDANCE WITH BS EN 150 717/1 (1997) ACOUSTIC CRITERIA TESTED TO BS476, PARTS 20/22, EN 1364-1 (1999) & EN1365-2 (1999)

FOR DRY LINING BOXES (FITTED INTUMESCENT GASKETS)
SINGLE (NABC/A1) - DOUBLE (NABC/A2) - TWIN (NABC/A3)

FOR METAL BOXES (WITH LOOSE INTUMESCENT GASKETS)
SINGLE (NABC/M1) - DOUBLE (NABC/M2) - TWIN (NABC/M3)

FOR CEILING ROSE BOXES
REF: MTC/A

Two types of Envirograf® acoustic and fire-rated box inserts – for dry lining boxes and for metal boxes.

THE BENEFITS

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

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 meet 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 retrofit 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.

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

ACOUSTIC COVERS – DRY LINING FITTING INSTRUCTIONS

1

Compress the cover ready to insert into the aperture.

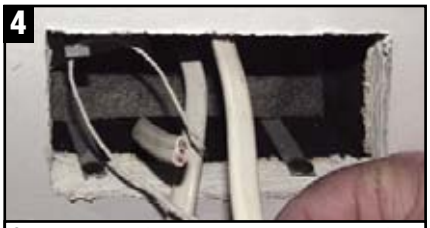
2

Insert cables through the cover. Hold onto the string to prevent the cover from falling into the cavity. Picture shows view from inside the cavity, where several cables have been inserted into the cover.

3

Continue to hold onto the string and cover, then push the fixing pins through the metal brackets and into the plasterboard.

4



Once the cover is fixed, cut the string and remove from the cover

5

Insert cables into the socket housing.

6

Connect cables to the socket front plate.

ACOUSTIC COVERS – METAL BOX FITTING INSTRUCTIONS

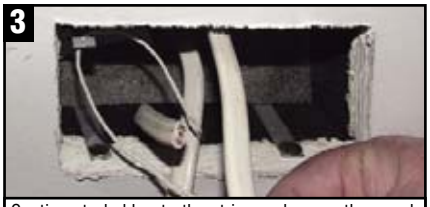
1

Compress the cover ready to insert into the aperture.

2

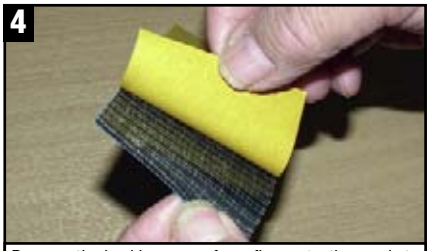
Insert cables through the cover. Hold onto the string to prevent the cover from falling into the cavity. Picture shows view from inside the cavity, where several cables have been inserted into the cover.

3



Continue to hold onto the string and cover, then push the fixing pins through the metal brackets and into the plasterboard. Afterwards, cut and remove the string.

4



Remove the backing paper from fire protection gasket.

5

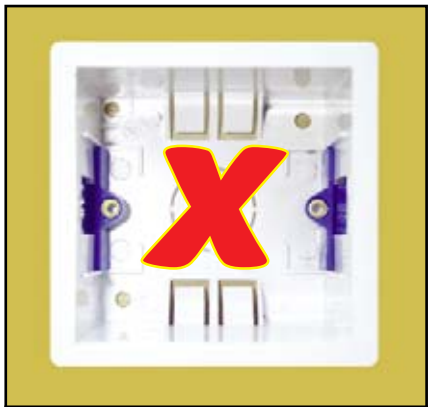
Insert the gasket into the metal box housing.

6

Cables can be inserted through the fire protection gasket into the socket housing and then the cables can be connected to the socket front plate.

EFFECTIVE ACOUSTIC & FIRE PROTECTION TESTED AT AVON FIRE AND RESCUE SERVICE. **Envirograf® products for protection of downlighters, electrical boxes, and trunking were given rigorous tests by Avon Fire & Rescue Service at their fire training centre, witnessed by a substantial number of ECA, IEE, & NICEIC delegates. Each test clearly identified the huge potential risk of fire spreading from room to room via electrical fittings. Protection is absolutely vital, in order to prevent the spread of flames in a building, whether home or**

DON'T FORGET PADS OR PILLOWS FOR ELECTRICAL TRUNKING, PILLOWS FOR CABLE TRAYS, PADS OR PILLOWS FOR BUSBAR TRUNKING & DOWNLIGHTER COVERS, BOTH FIRE & ACOUSTIC-RATED



UNPROTECTED

PROTECTED

GASKETS EXPAND IN A FIRE

Envirograf® intumescent gaskets, complying with the revised 17th Edition IEE Regulations and Document B Building Regulations. Absence of gaskets breaks regulations and could allow a fire to travel along electrical conduits and through ceilings and walls like arteries in a body.

ACOUSTIC AND LOFT COVERS FOR USE OVER RECESSED LIGHT FITTINGS

Envirograf® acoustic covers have been on sale for many years, meeting Document E for impact and airborne sound. Now that the new loft requirements are to have more lagging both in domestic and commercial buildings, 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 and this cover gives the same thermal requirements as for Document L. Although there are now these 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 which will ignite paper, cloth, and many insulation materials. In a fire, the heat in the canister is in excess of 500°C.

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

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.

THE NEW ENVIROGRAF® DOWNLIGHTER ADAPTOR, OFFERING FIRE PROTECTION AND ENERGY EFFICIENCY

INTRODUCTION

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 also pose a real danger to the fire integrity of a building for two main reasons:

1: Holes are cut into the ceiling for the light units, removing the ceilings fire resistance ability and secondly, the units can run at extremely high temperatures presenting the possibility of ignition, causing a fire.

2: Energy-saving has also become a major priority for building owners and occupiers. Downlighters can require up to 50W per unit and ceilings in many commercial buildings can contain a large number of this type of light, resulting in 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.

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**

REGULATIONS AND TESTING

Section B3 in Document B of the UK Building Regulations states the folowing:

B3 (ii): The resistance of an element of construction is a measure of its ability to withstand the effects of fire in one or more ways, as follows:

a: resistance to collapse, i.e. the ability to maintain load-bearing capacity (which applies to load-bearing elements only);

b: resistance to fire penetration, i.e. an ability to maintain the integrity of the element; and

c: resistance to the transfer of excessive heat, i.e. an ability to provide insulation from high temperatures.

Envirograf® Downlighter Adaptors can also assist in meeting the requirements stated in the **Approved Document L2B: Conservation of fuel and power (Existing buildings other than dwellings).**

Envirograf® Downlighter Adaptors have been tested to BS476 Part 21 (1987), achieving 66 minutes of fire protection.

DESIGN DETAILS

The Envirograf® downlighter adaptor is a lightweight metal unit containing intumescent material that expands in a fire, holding the unit in place and sealing the hole in the ceiling structure, thus preventing fire and smoke penetration and maintaining the fire rating of the ceiling/floor.

INSTALLATION

The Envirograf® downlighter adaptor is simple to fit, only taking a few minutes per unit by a qualified electrician. See the illustrated panel on the right for installation instructions.

ORDERING REFERENCES

Earthing to fitting
DA1

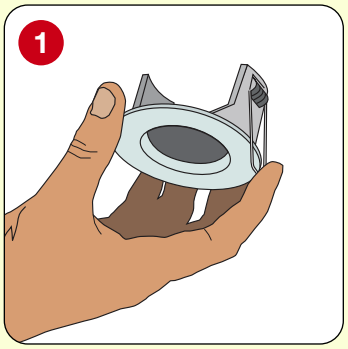
Bayonet lampholder earthing
DA2

Add suffix **/BC** (for bayonet cap fitting) or **/ES** (for Edison screw fitting) to the reference, according to the type of bulb holder required.

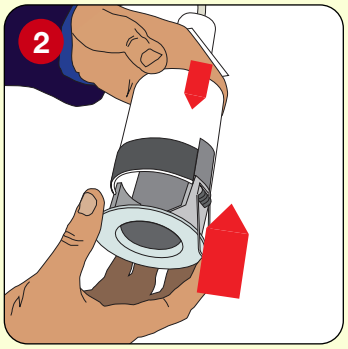
DA1 is supplied with a standard white lamp holder with an earthing terminal (marked ⏚ in the picture above left).

DA2 is supplied with a brass lamp holder including earthing terminal (marked ⏚ in the picture above right).

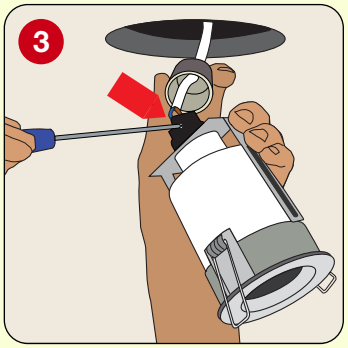
When ordering, please specify the product name and code of the original light fitting or send us a sample or photograph of the fitting.



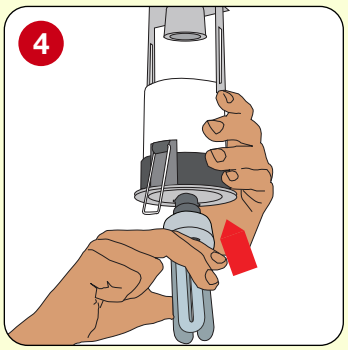
Remove the existing downlighter and disconnect all wiring, including any transformer units.



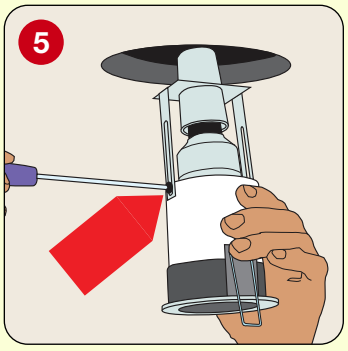
Remove the existing bulb. Clip the new downlighter adaptor onto the back of the downlighter fitting.



Using xisting mains wiring, re-wire the new adaptor. Two options are available for earthing (see ordering references section on the left).



Fix the new low-energy bulb into the fitting in the normal way.



Adjust the fitting to suit the bulb length. Slide the cylinder to the correct length and fasten the screws to secure. Then fit the lamp unit back into the ceiling. Bulbs are simply changed in the normal way.

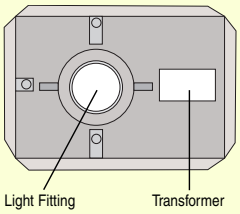
A BREACH TOO FAR

PRODUCT 32: DOWNLIGHTER COVERS/CAGES/TENTS FOR LIGHTING

Without an intumescent cover, the light fitting would collapse in under 4 minutes, allowing the fire to spread to other parts of the building, significantly increasing the risk to life and damage to property, perhaps preventing insurance compensation.

- 60 minutes fire protection
- Fully-ventilated for heat dispersal
- Special retaining brackets for speed fixing of covers for downlighters and modular fittings
- A load-bearing suspended ceiling was independently-tested to BS476 Parts 21, 22, and 23 Clause 5 (1987) in a test centre in conjunction with international fire consultants
- A timber/load-bearing floor with 12mm plasterboard was independently-tested at LPC in conjunction with Westminster City Council, witnessed by London Fire Brigade personnel
- Twelve independent tests by LPC, TRADA, IFC, Kitchener, TNO, and BTC in various ceilings to BS476 Parts 22, 23, and 23 Clause 5 (1987)
- Low prices
- Extensive range of sizes
- New acoustic range for sound absorption

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

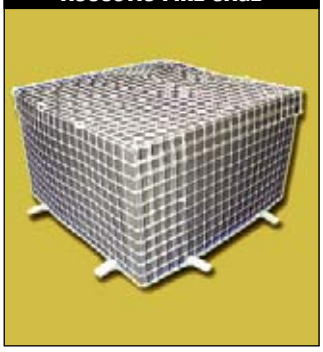


Tested to BS476 Parts 22, 23, and 23 Clause 5 (1987). Integrity 88 minutes.

STANDARD FIRE CAGE

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 FIRE CAGE



INTUMESCENT 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

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 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:

DOWNLIGHTERS:

Standard	Standard Light Fitting			Light Fitting & Transformer Combined			
Reference	Length	Width	Height	Reference	Length	Width	Height
DLC0	150mm	150mm	120mm	DSLVA	300mm	100mm	120mm
DLC1	130mm	130mm	70mm	DSLVB	300mm	180mm	140mm
DLC2	130mm	130mm	100mm	DSLVD	300mm	300mm	140mm
DLC3	130mm	130mm	140mm	DSLVF	450mm	290mm	150mm
DLC4	180mm	180mm	130mm	DSLVG	475mm	320mm	215mm
DLC5	180mm	180mm	170mm	DSLVO	400mm	250mm	200mm
DLC6	260mm	260mm	120mm				
DLC7	260mm	260mm	230mm				
DLC8	300mm	300mm	170mm				
DLC9	350mm	350mm	230mm				

Special sizes made to order.

NB: Allow clearances around light fittings: 40mm horizontal / 15mm vertical

FIRE CAGES:

Cage	Standard Light Fitting			Light Fitting & Transformer Combined			
Reference	Length	Width	Height	Reference	Length	Width	Height
FC 1	150mm	150mm	120mm	FC 1R	325mm	150mm	120mm
FC 2	150mm	150mm	170mm	FC 2R	325mm	150mm	170mm
FC 3	200mm	200mm	120mm	FC 3R	375mm	200mm	120mm
FC 4	200mm	200mm	170mm	FC 4R	375mm	200mm	170mm
FC 5	260mm	260mm	120mm	FC 5R	435mm	260mm	120mm
FC 6	260mm	260mm	170mm	FC 6R	435mm	260mm	170mm
FC 7	260mm	260mm	230mm	FC 7R	435mm	260mm	230mm
FC 8	300mm	300mm	120mm	FC 8R	475mm	300mm	120mm
FC 9	300mm	300mm	230mm	FC 9R	475mm	300mm	230mm
FC10	350mm	350mm	175mm	FC10R	525mm	350mm	175mm

Special sizes made to order. For advice on specifications, see contact details on back cover.

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 16th Edition IEE Regulations. Also tested to NEN 6069 (1997).

ORDERING REFERENCES:

DOWNLIGHTERS:

Acoustic	Downlighter Cover Size		
Reference	Diameter	x	Height
DLC0/AC	150mm	x	120mm
DLC1/AC	130mm	x	70mm
DLC2/AC	130mm	x	100mm
DLC3/AC	130mm	x	140mm
DLC4/AC	180mm	x	130mm
DLC5/AC	180mm	x	170mm
DLC6/AC	260mm	x	120mm
DLC7/AC	260mm	x	230mm
DLC8/AC	300mm	x	170mm
DLC9/AC	350mm	x	230mm

Special sizes made to order, including DSLV/AC range.

FIRE CAGES:

Cage	Standard Light Fitting			Light Fitting & Transformer Combined			
Reference	Length	Width	Height	Reference	Length	Width	Height
FC 1/AC	190mm	190mm	140mm	FC 1R/AC	365mm	190mm	140mm
FC 2/AC	190mm	190mm	190mm	FC 2R/AC	365mm	190mm	190mm
FC 3/AC	240mm	240mm	140mm	FC 3R/AC	415mm	240mm	140mm
FC 4/AC	240mm	240mm	190mm	FC 4R/AC	415mm	240mm	190mm
FC 5/AC	300mm	300mm	140mm	FC 5R/AC	475mm	300mm	140mm
FC 6/AC	300mm	300mm	190mm	FC 6R/AC	475mm	300mm	190mm
FC 7/AC	300mm	300mm	250mm	FC 7R/AC	475mm	300mm	250mm
FC 8/AC	340mm	340mm	140mm	FC 8R/AC	515mm	340mm	140mm
FC 9/AC	340mm	340mm	250mm	FC 9R/AC	515mm	340mm	250mm
FC10/AC	390mm	390mm	195mm	FC10R/AC	565mm	390mm	195mm

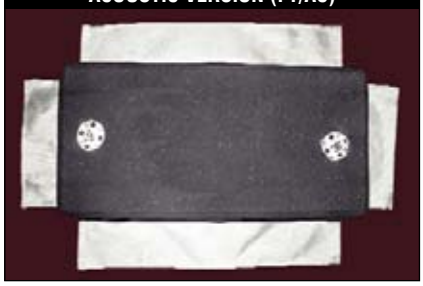
Special sizes made to order. For advice on specifications, see contact details on back cover.

TENTS FOR LIGHT FITTINGS AND AIR CONDITIONING UNITS
PRODUCT 31

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'**

STANDARD VERSION (FT)

ACOUSTIC VERSION (FT/AC)



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 meet Document 'E'. Also tested to NEN 6069 (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	*

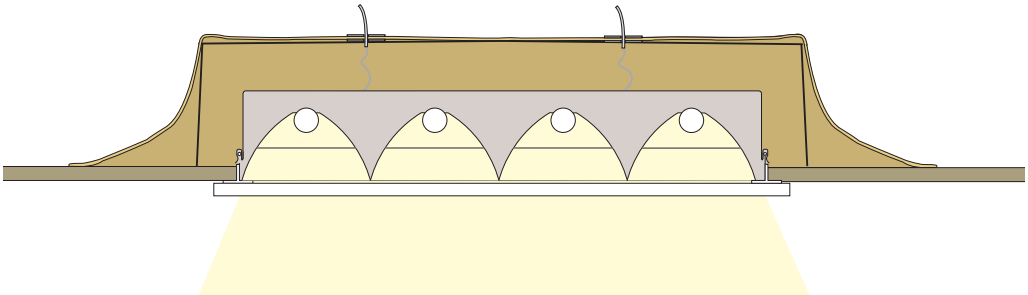
Sizes marked with an asterisk above (*) are all made to order.

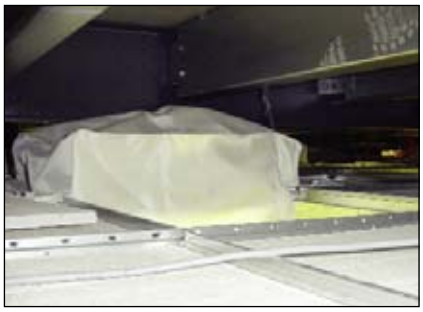
AIR CONDITIONING COVERS

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 can be made to order

Envirograf® custom-made acoustic covers made for top lighting company Igguzini. They were designed to maintain constant air pressure below a suspended ceiling in a top high street store in which they were fitted.





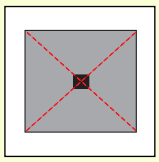
AIR CONDITIONING – GET COVERED

PRODUCT 31: AIR CONDITIONING PROTECTION COVERS

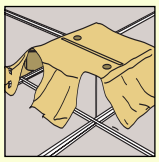
FIRE PROTECTION FOR AIR CONDITIONING UNITS MOUNTED IN CEILINGS

- Quick-fit installation
- Standard & acoustic versions
- Self-supporting covers
- Lightweight and flexible
- Extensive range of sizes
- Independently-tested
- Meets Doc B/E/L Regulations
- Meets IEE 17th Edition Regs

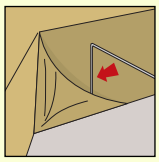
INSTALLATION OF INTUMESCENT FIRE TENT FOR USE OVER RECESSED AIR CONDITIONING UNITS

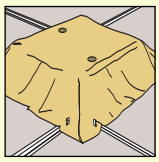


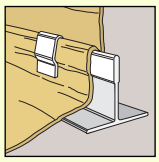
Place the tent on its back and thread the supplied rods through the central retaining patch. For larger tents, thread through the central and outer patches.



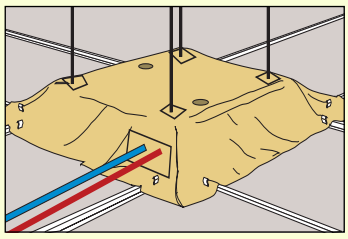
Place the tent over the aircon unit and feed the cable through the ventilation hole, connecting it to the aircon unit according to the manufacturer's instructions. Go to each corner and pull the material away from the fitting over the T-bar and fix the material to the T-bar with the supplied clips. Pinch each clip with a pair of pliers to fix tightly.







With the tent laid out, return it to its normal upright position and insert the rod ends into their pockets placed at each corner of the tent.



Intumescent card is fixed to the top of the tent to provide entry points for support rods or cables or pipes to pass through.
Note: where the unit is already fitted, seams can be made to allow the cover to be placed over the unit and the joints can be sealed with the supplied adhesive.

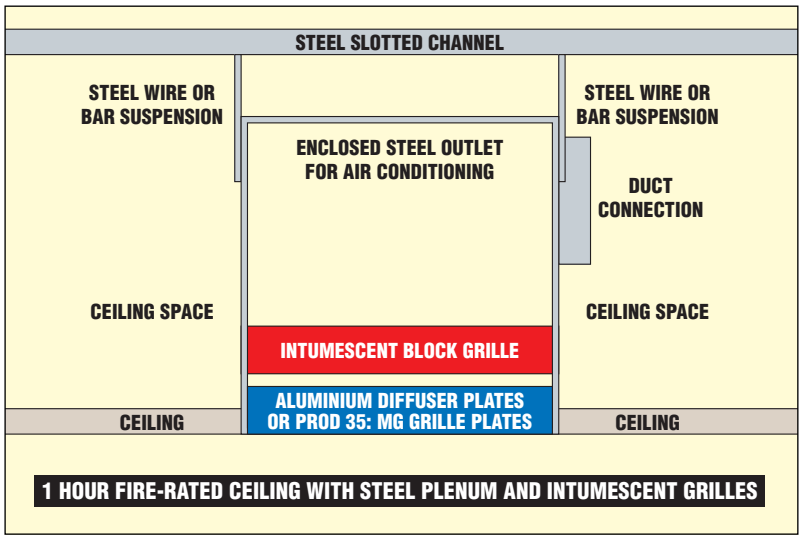
VERY EASY TO FIT

TENTS ARE IDEAL PROTECTION FOR AIR CONDITIONING UNITS (SEE LEFT)

ORDERING REFERENCES

Reference	Length	Width	Height
AIR1	400mm	400mm	240mm
AIR2	400mm	400mm	280mm
AIR3	600mm	600mm	250mm
AIR4	850mm	850mm	240mm
AIR5	850mm	850mm	280mm

Includes adhesive and patches. All covers are rated one hour.



1 HOUR FIRE-RATED CEILING WITH STEEL PLENUM AND INTUMESCENT GRILLES

PRODUCT 35: MG GRILLE

With rising temperatures, air conditioning units are becoming commonplace in many buildings. They do, however, provide a serious potential fire risk when fitted into a suspended ceiling or fire-rated plasterboard ceiling. Ducting outlets need to be protected against fire and smoke as illustrated above. In a fire, unprotected units could invalidate upper floor insurance claims, therefore it is crucial to protect the air conditioning unit with a fireproof cover and to ensure you meet these regulations:–

- **Covers should be fitted to comply with revised 17th Edition IEE Regulations of fire-rated ceilings**
- **Covers should be fitted to comply with Document B of UK Building Regulations, to keep integrity of suspended/plasterboard fire-rated ceilings**
- **Covers should be fitted to comply with the new Document E/L acoustic requirements**

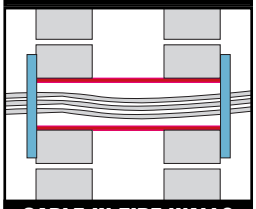
INTUMESCENT PROTECTION FOR PVC & METAL ELECTRICAL TRUNKING IN CEILINGS & WALLS

PRODUCTS 25 / 26 / 27 / 28 / 29

Where fire and smoke protection are required, use Products 27 (TP) and 29 (TE)
Where PVC trunking passes through hollow partitions, use Product 110 (IWS/H)

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

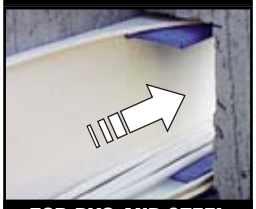
PRODUCT 25



CABLE IN FIRE WALLS

Complete fire and smoke protection system for cables passing through brick, block, and concrete fire barrier walls. Consists of a sleeve and a smoke protection plate each end

PRODUCT 26



FOR PVC AND STEEL

Intumescent pads for trunking, allowing maximum cable use, which MUST be fitted into the gap area for effective protection

PRODUCT 27

FOR PVC AND STEEL

Removable intumescent trunking pillow for regular maintenance, which MUST be pushed into the opening for protection and tagged to trunking to avoid losing it

PRODUCT 28

Intumescent trunking wrap to fit around PVC trunking. Use where PVC electrical trunking passes through a block, brick, or concrete fire barrier wall or floor

PRODUCT 29

Removable intumescent cable tray pillow for easy maintenance, which MUST be pushed into the opening for protection and tagged to the tray to avoid losing it

SINGLE PAD

Up to 100mm

Trunking up to 100mm square requires only one intumescent pad to be fitted

SET OF 2 PADS

150mm – 375mm

Trunking from 150mm up to 375mm square requires two intumescent pads to be fitted

MULTI-PAD SETS

Measure each section

Multi-sectional trunking must have each section protected. State section measurements

PAD SETS IN USE

Pads fitted into trunking within the wall area to protect from potential fire penetration

PROTECTED TRUNKING

This photograph shows how the intumescent products have completely sealed the trunking

PRODUCT 25: INTUMESCENT PROTECTION SLEEVE SYSTEM

ORDERING REFERENCES:

Reference	Internal	External	Length
ICP1/2	50mm	65mm	200mm
ICP2/2	90mm	115mm	200mm
ICP3/2	115mm	150mm	200mm
ICP4/2	165mm	210mm	200mm
ICP5/2	215mm	265mm	200mm
ICP1/6	50mm	65mm	600mm
ICP2/6	90mm	115mm	600mm
ICP3/6	115mm	150mm	600mm
ICP4/6	165mm	210mm	600mm
ICP5/6	215mm	265mm	600mm

FOR ALL OF THE PRODUCTS SHOWN ON THIS PAGE, SIZES NOT LISTED MAY BE MADE TO SPECIAL ORDER: PLEASE ASK!

IEE REGULATIONS

These Envirograf® products comply with revised 17th edition IEE Regs and Doc B UK Building Regulations. The requirements are:–

Where cables, conduits, trunking, or other items of a wiring system pass through ceilings, floors, roofs, or walls of a building, any part of the hole that is left around the electrical material shall be made good to the same degree of fire resistance as that required for the element being passed through. Additionally, internal barriers that give the same degree of fire resistance shall be installed in busbars, busbar trunking, conduits, ducting, socket and switch boxes, and trunkIng, where the ceilings, floors, roofs, and walls have a specified fire resistance.

PRODUCT 27: INTUMESCENT PILLOWS

ORDERING REFERENCES:

Reference	Trunking Size	Trunking Pillow Size
TP 21	50mm x 25mm	50mm x 16mm x 100mm
TP 22	50mm x 50mm	50mm x 35mm x 100mm
TP 31	75mm x 25mm	75mm x 16mm x 100mm
TP 32	75mm x 50mm	75mm x 35mm x 100mm
TP 33	75mm x 75mm	75mm x 50mm x 100mm
TP 41	100mm x 25mm	100mm x 16mm x 100mm
TP 42	100mm x 50mm	100mm x 35mm x 100mm
TP 43	100mm x 75mm	100mm x 50mm x 100mm
TP 44	100mm x 100mm	100mm x 70mm x 100mm
TP 62	150mm x 50mm	150mm x 35mm x 100mm
TP 63	150mm x 75mm	150mm x 50mm x 100mm
TP 64	150mm x 100mm	150mm x 70mm x 100mm
TP 66	150mm x 150mm	150mm x 110mm x 100mm
TP 84	200mm x 100mm	200mm x 70mm x 100mm
TP 93	225mm x 75mm	225mm x 50mm x 100mm
TP 99	225mm x 225mm	225mm x 170mm x 100mm
TP126	300mm x 150mm	300mm x 110mm x 100mm

PRODUCT 26: INTUMESCENT PADS

ORDERING REFERENCES:

Reference	Trunking Size	Pads
IP 21	50mm x 25mm	1
IP 22	50mm x 50mm	1
IP 33	75mm x 75mm	1
IP 31	75mm x 25mm	1
IP 32	75mm x 50mm	1
IP 44	100mm x 100mm	1
IP 41	100mm x 25mm	1
IP 42	100mm x 50mm	1
IP 43	100mm x 75mm	1
IP 66	150mm x 150mm	2
IP 62	150mm x 50mm	2
IP 63	150mm x 75mm	2

Reference	Trunking Size	Pads
IP 64	150mm x 100mm	2
IP 82	200mm x 50mm	2
IP 83	200mm x 75mm	2
IP 85	200mm x 125mm	2
IP 99	225mm x 225mm	2
IP 92	225mm x 50mm	2
IP 93	225mm x 75mm	2
IP 94	225mm x 100mm	2
IP 96	225mm x 150mm	2
IP123	300mm x 75mm	2
IP126	300mm x 150mm	2
IP153	375mm x 75mm	2

PRODUCT 28: TRUNKING WRAPS

ORDERING REFERENCES:

Reference	Trunking Size
TW2	50mm x 50mm
TW3	75mm x 75mm
TW4	100mm x 100mm

Reference	Trunking Size
TW23	50mm x 75mm
TW13	100mm x 75mm

See also Product 110 for other sizes

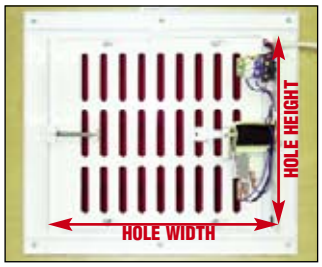
PRODUCT 29: CABLE TRAY PILLOWS

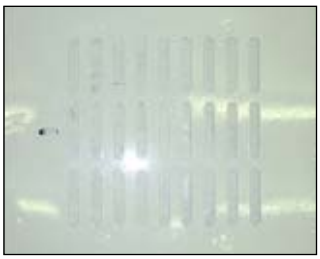
ORDERING REFERENCES:

Reference	Trunking Size
TE 2	50mm x 50mm
TE 3	75mm x 50mm
TE 4	100mm x 50mm
TE 5	127mm x 50mm

Reference	Trunking Size
TE 6	150mm x 50mm
TE 8	200mm x 50mm
TE 9	225mm x 50mm
TE12	300mm x 50mm

PRODUCT 34: INTUMESCENT FIRE AND SMOKE GRILLES (SLOTTED AND LOUVRED)





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 fulfils 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:

(A) Manual re-set (by hand, with a screwdriver or knife) with a permanent loading of 125mA 24V

(B) 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

(C) A non-electrical grille containing a thermal breaker that automatically activates at 70ºC, moving the shutter to the closed position

(D) A non-electrical grille containing a memory spring device that operates in the temperature range 50ºC to 65ºC, 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:

Ref	Internal Hole Size Height x Width	External Size Height x Width
NTJ1	140 x 280mm	200 x 340mm
NTJ2	240 x 280mm	300 x 340mm
NTJ3	190 x 305mm	250 x 365mm
NTJ4	270 x 305mm	325 x 365mm
NTJ5	340 x 380mm	400 x 440mm
NTJ6	390 x 430mm	450 x 490mm
NTJ7	390 x 505mm	450 x 565mm
NTJ8	290 x 580mm	350 x 640mm

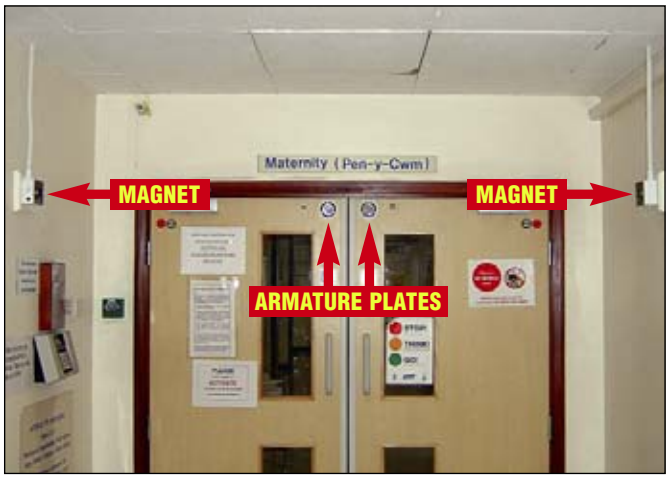
References shown for manual reset grilles only. Other grilles made to order.

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 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/CB: A control unit with battery back-up and charger to keep the grille open in case of a 24 volt power failure

PRODUCT 43: MAGNETIC TIMED DOOR HOLDER (ACCEPTED BY FIRE BRIGADES AND BUILDING CONTROL OFFICERS)



DESCRIPTION

An independent door hold system, not wired into the fire alarm system, as it only stays open from 20 to 57 seconds, so it is accepted by all fire brigades as a fail-safe system. The system is 240V powered and each unit can operate up to four 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.

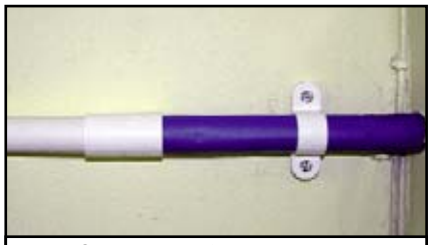
ORDERING REFERENCES:

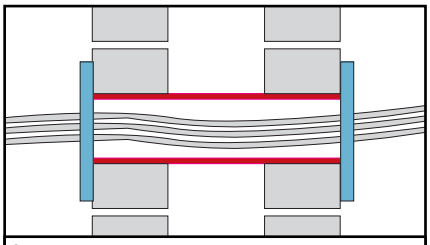
MHK1	**Kit for one door**	**(1 control, 1 magnet, 1 plate)**
MHK2	**Kit for two doors**	**(1 control, 2 magnets, 2 plates)**
MHK4	**Kit for four doors**	**(1 control, 4 magnets, 4 plates)**
MH24	**24V magnet and armature (parts can be supplied separately)**	
MH240	**240V magnet and armature (parts can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

FIROBLOK INTUMESCENT SLEEVE FOR ELECTRICAL AND PLUMBING SERVICES (BOTH PVC AND STEEL)

PRODUCT 110

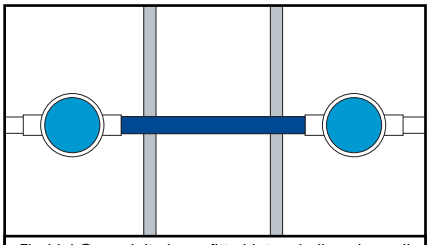
COMPLYING WITH THE 17th EDITION IEE WIRING REGULATIONS, DOCUMENT B OF UK BUILDING REGULATIONS, AND REGULATORY REFORM ORDER 2005. TESTED TO: BS476 PART 22 (1987) GIVING 69 MINUTES INTEGRITY AND INSULATION IN HOLLOW PLASTERBOARD PLUS LATH-AND-PLASTER WALLS
EN1366-1 (2000) ACHIEVING 122 MINUTES INTEGRITY AND INSULATION
EN1366-3 (2005) ACHIEVING 78 MINUTES INTEGRITY


Firoblok® conduit sleeve fitted into a 20mm coupling

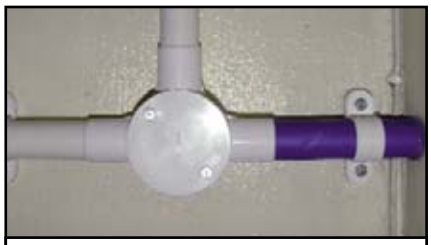

Cable protection in hollow walls including smoke seals.

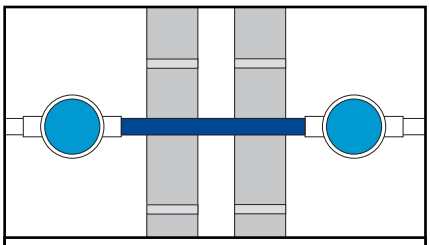

A Firoblok® sleeve applied around plastic trunking


Firoblok® conduit sleeve fitted into a 20mm BESA box


Firoblok® conduit sleeve fitted into a hollow dry wall


Testing a hollow plasterboard wall at TRADA, with Firoblok® sleeves around the PVC trunking and 100mm Firoblok® sleeves around the PVC and copper pipes. The trunking also has intumescent pads fitted inside. Both the single and double dry lining sockets have intumescent pads fitted inside the boxes.


Firoblok® conduit sleeve fitted into a 25mm BESA box


Firoblok® conduit sleeve fitted into a block cavity wall

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.

FOR THE ELECTRICIAN

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.

FOR THE PLUMBER

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.

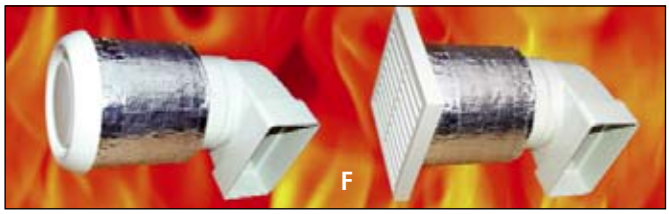
Firoblok® sleeves can be fitted along the length of plastic or steel pipes, and on cables (such as armoured cables feeding hospitals) and pipes (such as chemical pipe) giving fire protection and insulation. The protected cables will not overheat.

ORDERING REFERENCES:

Reference	Description	Length
110C/20	20mm Firoblok® conduit sleeve	300mm
110C/25	25mm Firoblok® conduit sleeve	300mm

See overleaf for Firoblok® sleeves for air conditioning ducting, cables, pipes, trunking, and ventilation outlets. Protection tents are available for air conditioning units.

PRODUCT 33: FIROBLOK INTUMESCENT TOILET AND 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

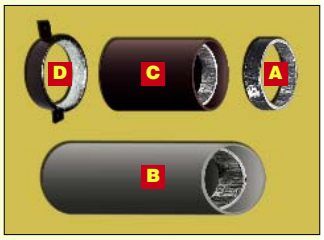
(A) Internal intumescent liner for PVC or steel ventilation pipes in a wall
(B) Length of grey PVC 110mm outside diameter pipe with internal intumescent liner
(C) Length of steel tube fitted with an internal intumescent liner, for cavity walls
(D) Intumescent-lined metal collar for use in suspended or 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):



Ref	(Pipe ID* mm)	Rating
LV 50/1	50	1 hour
LV 75/1	75	1 hour
LV 98/1	98	1 hour
LV100/1	100	1 hour
LV100/2	100	2 hour
LV150/1	150	1 hour
LV200/1	200	1 hour
LV225/1	225	1 hour
LV300/1	300	1 hour

Length of grey PVC 110mm OD* pipe with internal intumescent liner (See B):

Ref	Pipe Length (mm)	Rating
LV225/P	225	1 hour
LV300/P	300	1 hour
LV450/P	450	1 hour

Metal sleeve with internal intumescent liner for cavity walls (See C):

Ref	(Pipe ID* mm)	Rating
LVM100/1	100	1 hour

Metal sleeve with fixing brackets and internal intumescent liner, for suspended or plasterboard ceilings, supplied with fixing screws (See D):

Ref	(Pipe ID* mm)	Rating
LVML 98/1	98	1 hour
LVML100/1	100	1 hour
LVML150/1	150	1 hour

New Firoblok® external protection sleeve for PVC ventilation outlets (See F):

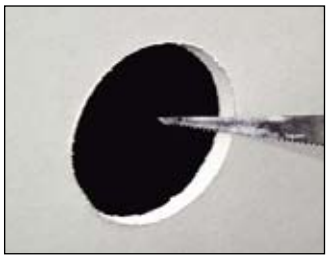
Ref	(Service OD* mm)	Hole (mm)	Rating
EC 80	80	88	1½ hours
EC100	100	105	1½ hours
EC125	125	130	1½ hours
EC150	150	155	1½ hours

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

FIROBLOK® VENT SLEEVE FITTING INSTRUCTIONS (CAN BE EASLIY FITTED ABOVE OR BELOW THE CEILING)

STEP 1: mark the outline for the Firoblok sleeve on the substrate

STEP 2: cut out the hole with a powered hole saw or see step 3



STEP 3: neatly cut out the hole with a padsaw and clean edges

STEP 4: fit the Firoblok sleeve over the vent and fit to the ducting

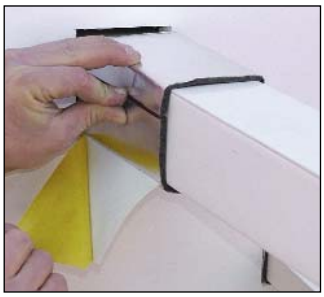
STEP 5: push the assembly back into the substrate until flush

STEP 6: the finished vent with fire protection – a neatly finished job!

WARRINGTON FIRE TEST RESULTS FOR THE FIROBLOK® VENT SLEEVES ACHIEVED AN EXCELLENT RESULT – 90 MINUTES INTEGRITY

Envirograf® Product 33 Firoblok® intumescent vent sleeves have been rigorously tested at Warrington Fire establishment and it was found to maintain its integrity for a period of 90 minutes. Upon inspection after the test, the intumescent material had expanded exceptionally well to fill the gap and stop the fire transmission to the other side, once more proving that passive intumescent fire protection products protect property and lives!

PRODUCT 110: FIROBLOK® INTUMESCENT FLEXIBLE WRAPS AND SLEEVES FOR DUCTING, PIPES, AND ELECTRICAL TRUNKING



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:

FOR CABLES, PIPES, AND TRUNKING

Reference	Internal Diameter	External Diameter
IWS 18	18mm	26mm
IWS 25	25mm	30mm
IWS 33	33mm	45mm
IWS 40	40mm	50mm
IWS 50	50mm	59mm
IWS 55	55mm	65mm
IWS 60	60mm	75mm
IWS 83	83mm	97mm
IWS 90	90mm	105mm
IWS100	100mm	116mm
IWS115	115mm	131mm
IWS150	150mm	170mm
IWS165	165mm	189mm
IWS215	215mm	265mm

Other sizes made to order.

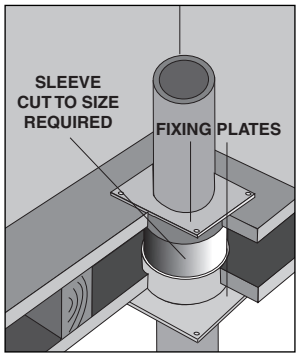
FOR VENTILATION DUCTING

Reference	Size
110V/15	110mm x 54mm
110V/26	204mm x 60mm
110V/29	220mm x 90mm
110V/22	234mm x 29mm
110V/32	308mm x 29mm
110V/67	692mm x 70mm

FOR PLASTIC ELECTRICAL TRUNKING

Reference	Size
110T/11	25mm x 25mm
110T/22	50mm x 50mm
110T/33	75mm x 75mm
110T/32	75mm x 50mm
110T/42	100mm x 50mm
110T/43	100mm x 75mm
110T/44	100mm x 100mm

Both types are available in 100mm, 150mm, 200mm, and 500mm lengths.



NEW FIROBLOK® INTUMESCENT SLEEVES TO PROTECT DUCTING, TRUNKING, AND CEILING FANS

FIROBLOK

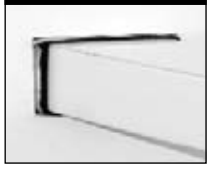
THE MAIN ADVANTAGES OF THE FIROBLOK PRODUCT RANGE

- Only one piece to position in the wall by one person
- Can be cut to suit a variety of cavity depths
- Slim profile for an easier, neater finish
- Silver-coloured sleeves are water-repellent
- Flexible fibre pipe sleeves protect pipes from corrosion
- Silver-coloured sleeves can be used for new and retro-fitting

TRUNKING PROTECTION

PIPE PROTECTION

VENTILATION PROTECTION



THE EASY GUIDE TO PREPARATION AND FITTING OF THE VERSATILE FIRE PROTECTION WRAP

Measure the depth of the opening and mark this on the wrap. You cut off just what you need with no waste.

Cut the wrap to the marked depth with a sharp knife.

Lift the self-adhesive flap to reveal a marked line along the depth of the wrap.

Cut along the marked line with a sharp knife to open up the wrap for fitting onto the trunking or ducting

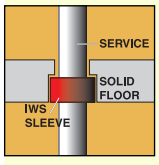
Check that the wrap fits comfortably around the trunking and introduce this combination into the opening

Whilst holding the wrap in place, remove the backing from the self-adhesive strip

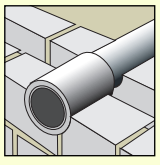
Firmly fasten the self-adhesive strip over the join of the wrap

Finally, push the wrap into the opening until it is level with the surface

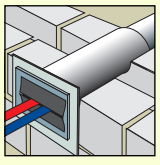
SOLID FIXING



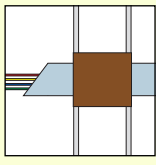
Product 110 shown in a concrete floor construction



For walls classed as a risk on one side only, cut the sleeve to size and place on risk side.

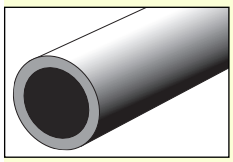


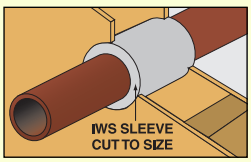
IWS sleeves can be fitted through walls for protection from both sides. Sleeves for cables require a protective insert (IWS/C) to prevent puncture. Smoke seal plates are also available.



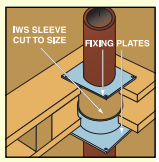
A square sleeve can be supplied for cable trunking protection

HOLLOW FIXING





The IWS sleeves can be fitted through hollow plasterboard walls. Sleeves used for cables require a protective insert (IWS/C) to prevent puncture.



Fixing plates must be used in wooden floors

FIRE KILLS – STOP IT TODAY WITH FIRE STOPPING

PRODUCT 1: 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.

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

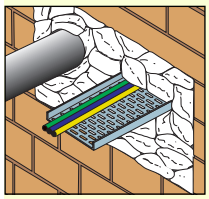
This product was included in a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987). An integrity of 128 minutes was achieved (compressible type 240 minutes). Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:

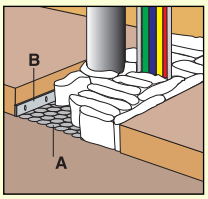
Reference	Size (thickness first)	Reference	Size (thickness first)
P 1	40mm x 150mm x 150mm	P11	100mm x 100mm x 350mm
P 2	40mm x 225mm x 225mm	P12	100mm x 100mm x 500mm
P 3	40mm x 300mm x 300mm	P13	100mm x 200mm x 300mm
P 4	40mm x 127mm x 250mm	P14	100mm x 200mm x 500mm
P 5	80mm x 127mm x 250mm	P2000	30mm x 135mm x 135mm
P 6	80mm x 300mm x 300mm	P2001	30mm x 130mm x 200mm
P 7	80mm x 225mm x 225mm	P2002	30mm x 130mm x 230mm
P 8	100mm x 100mm x 150mm	P2003	40mm x 100mm x 300mm
P 9	100mm x 100mm x 200mm	P2004	40mm x 200mm x 300mm
P10	100mm x 100mm x 250mm	P2005	200mm x 150mm x 300mm

Add suffix /T for metal eyelets with 100mm cord to be used for linking together.

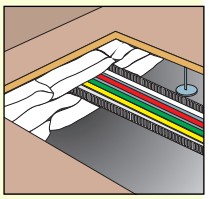
A TRUE INTUMESCENT FIRE AND SMOKE STOP PILLOW



Pillows fitted at random into an opening in a wall



Pillows fitted into floor and ceiling service penetration areas. 38mm diameter wire mesh **A** is used to support pillows fixed with Envirograf® FB/C metal straps **B**



Pillows fitted into a suspended floor access area

PRODUCT 4: 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. Unit IS100 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).

PERFORMANCE

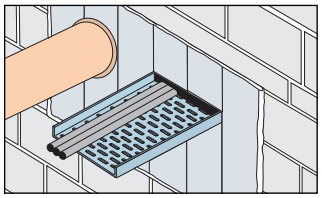
This product was included in a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987). An integrity of 240 minutes was achieved.

ORDERING REFERENCES:

Ref	Dimensions
IS 50	50mm x 600mm x 1200mm
IS100	100mm x 600mm x 1200mm

(1 hour - 4 hours fire rating)

PRODUCT 2: 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 pipes.

PERFORMANCE

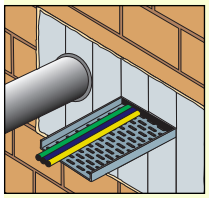
Tested to BS476 Part 22 (1987), achieving an integrity of 138 minutes. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:

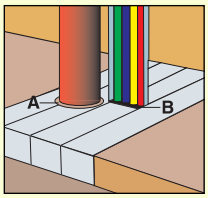
Ref	Depth x Width	Ref	Depth x Width
IB1	50mm x 150mm	IB2	100mmx 150mm
IB1A	50mm x 100mm	IB2A	100mmx 100mm
IB1B	50mm x 50mm	IB2B	100mmx 50mm

NB: IB1=1hr IB2=2hr rating. Other sizes can be made to order

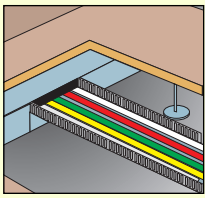
INTUMESCENT FIRE STOP BLOCKS



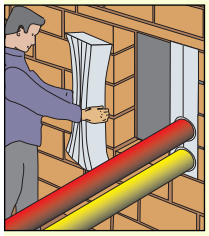
Intumescent blocks fitted into an opening in a wall



Blocks fitted into ceiling/floor penetration. Intumescent wraps **A** around pipes & intumescent expansion joints **B** over cable trays. Seal joints with intumescent acrylic mastic

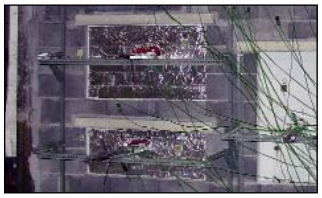


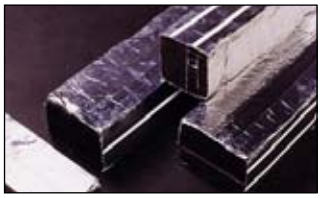
Blocks fitted into an access area of a suspended floor



Blocks can be easily removed and replaced during maintenance

PRODUCT 3: 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

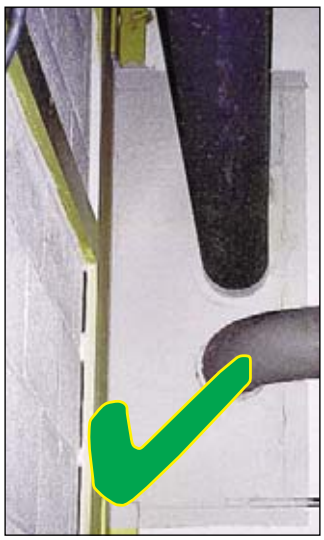
This product underwent a fire resistance test employing the general procedures and criteria of BS476 Part 22 (1987). An integrity of 138 minutes was achieved. Also tested at VNE to European Standard EN1363-1 (2000).

ORDERING REFERENCES:

Ref	Depth x Width	Ref	Depth x Width
SIB1	50mm x 150mm	SIB2	100mm x 150mm
SIB1A	50mm x 100mm	SIB2A	100mm x 100mm
SIB1B	50mm x 50mm	SIB2B	100mm x 50mm

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

PRODUCT 5: INTUMESCENT-COATED NON-FIBROUS SLABS



DESCRIPTION

A high density fire-stop sponge with a either white intumescent coating on both sides or black impregnated sponge that is easiliy cut with a sharp knife and can be painted over/decorated.

USE

Suitable for use as a permanent fire barrier, where no fibres are permitted (eg: including computer rooms, operating theatres, sterile areas, electronics areas, and food preparation areas.

PERFORMANCE

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

ORDERING REFERENCES:

Reference	Dimensions
WHITE COATING	
NF50/ 500	50mm x 500mm x 1000mm
NF50/ 750	50mm x 750mm x 1000mm
NF50/1000	50mm x 1000mm x 1000mm
BLACK IMPREGNATED	
BNF50/ 500	50mm x 500mm x 1000mm
BNF50/ 750	50mm x 750mm x 1000mm
BNF50/1000	50mm x 1000mm x 1000mm

(An appropriate quantity of Jointing Compound is supplied)

PRODUCT 40: INTUMESCENT-COATED FIREPROOF SPONGE

DESCRIPTION

Fireproof sponge impregnated and coated with intumescent material. Very flexible, but stable in small/large apertures. Unaffected by water/chemicals. Supplied in sheets up to 1m x 2m area and 10-100mm thick. Can be supplied cut to size.

USE

For small or large expansion/movement joints, under raised computer floors, between glass screen walls and concrete floors, and between metal cladding and concrete.

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:

ONE HOUR PROTECTION

Reference	Depth into Wall	Thickness	Gap Size	Length
FCS1/30/10	30mm	10mm	2-10mm	1m
FCS1/30/15	30mm	15mm	2-15mm	1m
FCS1/30/20	30mm	20mm	10-20mm	1m
FCS1/30/25	30mm	25mm	15-25mm	1m
FCS1/30/30	30mm	30mm	20-30mm	1m
FCS1/30/40	30mm	40mm	30-40mm	1m
FCS1/30/50	30mm	50mm	40-50mm	1m
FCS1/30/60	30mm	60mm	50-60mm	1m

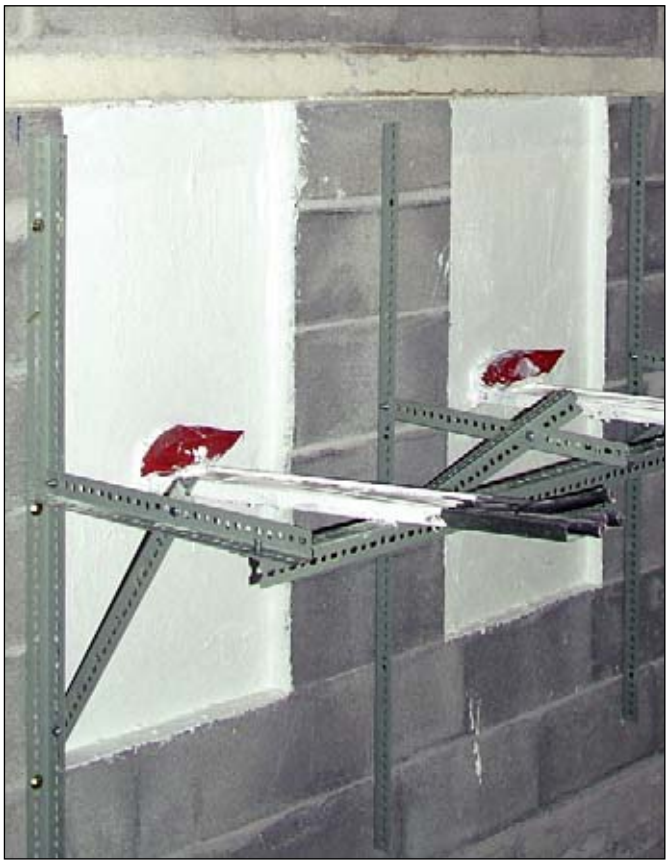
TWO-HOURS PROTECTION

Reference	Depth into Wall	Thickness	Gap Size	Length
FCS2/40/10	40mm	10mm	2-10mm	1m
FCS2/40/15	40mm	15mm	5-15mm	1m
FCS2/40/20	40mm	20mm	10-20mm	1m
FCS2/40/25	40mm	25mm	15-25mm	1m
FCS2/40/30	40mm	30mm	20-30mm	1m
FCS2/40/40	40mm	40mm	30-40mm	1m
FCS2/40/50	40mm	50mm	40-50mm	1m
FCS2/40/60	40mm	60mm	50-60mm	1m
FCS200/20	20mm	200mm		1m
FCS200/30	30mm	200mm		1m

SPONGE SLABS FOR LARGER AREAS

Reference	Thickness
FCS10	10mm
FCS15	15mm
FCS20	20mm
FCS25	25mm
FCS30	30mm
FCS40	40mm
FCS50	50mm
FCS60	60mm

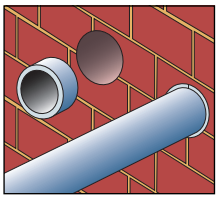
Slabs are available in 1m x 1m pieces.

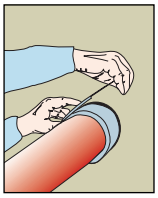


PRODUCT 7 – INTUMESCENT WRAP READY-MADE TO FIT EACH SIZE OF PIPE

DESCRIPTION

The Envirograf® Intumescent Wrap is for use around PVC or UPVC pipes and cables, and for steel or copper pipes that pass through block and brick walls or concrete ceilings. PVC and UPVC pipes are crushed as the pipe melts, filling the hole and preventing the passage of fire and smoke. Cables are similarly protected. Steel and copper pipes will be cooled as they pass through the wall or ceiling, absorbing the heat in the pipe, discharging into the structure, so that no radiated heat passes through the wall or ceiling. Envirograf® intumescent wraps are available in sizes from 15mm to 600mm, and giving up to 4 hours fire protection. Acoustic version available.





APPLICATION

Place the Envirograf® intumescent wrap around the pipe and fix the self-adhesive tab. Push into the wall or ceiling by about 10mm extra and face it with plaster or cement. Adhere the protected service label to the service to indicate that it is protected by an Envirograf® intumescent wrap. Now available: 10m roll of 30mm or 50mm wrap.

PERFORMANCE

This product was tested to BS476 Part 22 (1987), on sealing penetrations of various pipes passing through different types of floors and walls, resulting in integrity of up to 249 minutes. Tested at VNE Netherlands to stringent European standards EN1363/1 (2000) and EN1366/3.

ORDERING REFERENCES:

Ref	Wrap ID	Wrap OD	Pipe ID
EW 18	18mm	22mm	15mm
EW 25	25mm	29mm	22mm
EW 33	33mm	41mm	25mm
EW 40	40mm	48mm	32mm
EW 50	50mm	58mm	40mm
EW 55	55mm	63mm	50mm
EW 60	60mm	68mm	55mm
EW 83	83mm	95mm	65mm
EW 90	90mm	102mm	75mm
EW115	115mm	131mm	100mm
EW135	135mm	155mm	125mm
EW150	150mm	170mm	130mm
EW165	165mm	189mm	150mm
EW215	215mm	243mm	175mm or 200mm
EW250	250mm	282mm	225mm
EW300	300mm	340mm	250mm
EW350	350mm	394mm	250mm
EW400	400mm	452mm	350mm
EW450	450mm	506mm	400mm
EW500	500mm	564mm	450mm
EW600	600mm	676mm	500mm

ID=inside diam OD=outside diam
The EW reference is the wrap ID

EWE1 AND EWE2 CONTINUOUS INTUMESCENT PIPE & CABLE WRAP ON A ROLL

NEW 10m ROLLS OF WRAP AVAILABLE FOR MULTIPLE APPLICATIONS SUPPLIED COMPLETE WITH FIXING TAGS & LABELS

EWE1 rated 1-3 hours fire protection and insulation to BS476 Part 20 (1987) and EN1366-3

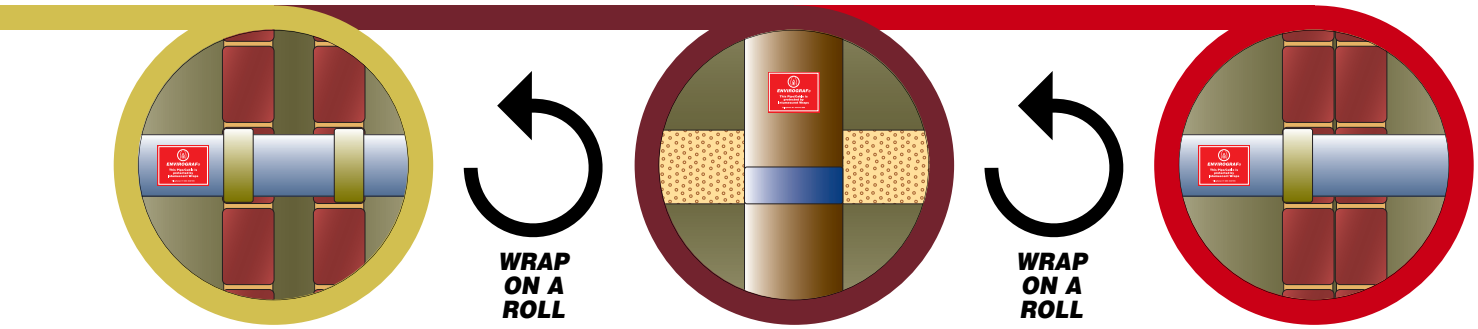
For UPVC / ABS / PVC Pipes & Cables Plus Steel and Copper Pipes

30mm wide

1 layer – pipes and cables 15 - 65mm diameter
2 layers – pipes and cables 75 - 127mm diameter
3 layers – pipes and cables 160 - 200mm diameter

Colour: Yellow

For use with Brick / Block / Concrete Walls and Concrete / Bison Floors
For timber / plasterboard ceilings / walls, use Product 110 (Firoblok)



EWE2 rated 1-4 hours fire protection and insulation to BS476 Part 20 (1987) and EN1366-3

For UPVC / ABS / PVC Pipes & Cables Plus Steel and Copper Pipes

50mm wide

1 layer – pipes and cables 40 - 115mm diameter
2 layers – pipes and cables 127 - 215mm diameter
3 layers – pipes and cables 250 - 400mm diameter

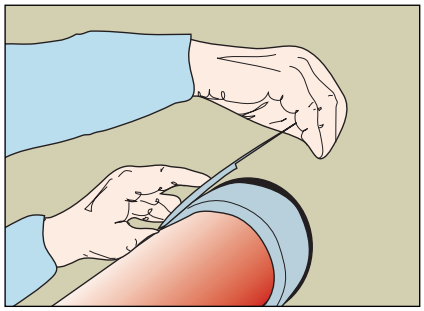
Colour: Blue

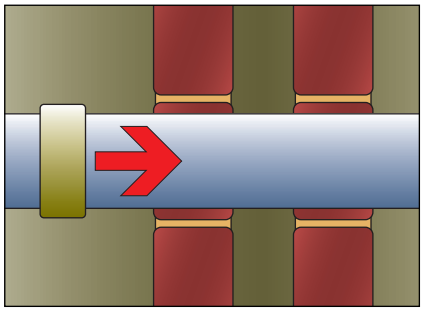
For use with Brick / Block / Concrete Walls and Concrete / Bison Floors
For timber / metal stud partitions / timber floors, use Product 110 (Firoblok)

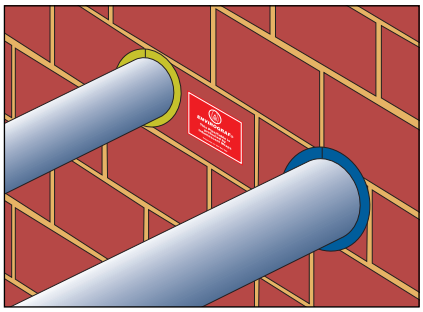
EWE1 AND EWE2 CONTINUOUS INTUMESCENT PIPE & CABLE WRAP ON A ROLL

STEP-BY-STEP FITTING INSTRUCTIONS FOR WALLS & CEILINGS

1: Cut the hole in the wall as required for new applications (see the table opposite for a guide to hole sizes)
2: Place the intumescent wrap around the service to be protected, using the correct number of layers (as shown in the table opposite) and affix with one of the supplied adhesive tabs
3: Install the wrap by pushing along the pipe or cable, into the hole and leave a recess to be finished off with Envirograf® Product 58 (intumescent mastic) or Product 63 (intumescent cement), as illustrated below
4: In a concrete floor, a wrap is required only on the risk side. In a cavity wall on either the risk side or both sides
5: Ensure that you do not use multiple single wraps in a "one behind the other" configuration: always wrap one layer over the other in the form of a bandage
6: Affix one of the supplied identification labels adjacent to the service you have protected







EWE1 30mm WIDE YELLOW ROLL SIZES

PIPE ID	PIPE OD	WRAP LAYERS	MINIMUM HOLE SIZE
15mm	18mm	1	27mm
22mm	25mm	1	34mm
25mm	33mm	1	42mm
32mm	40mm	1	49mm
40mm	50mm	1	59mm
50mm	55mm	1	64mm
55mm	60mm	1	69mm
65mm	83mm	1	92mm
75mm	90mm	2	108mm
100mm	115mm	2	133mm
125mm	135mm	2	153mm
150mm	165mm	3	192mm
160mm	175mm	3	202mm
200mm	215mm	3	242mm

This table is provided as a guide only. Actual measurements may vary.

EWE2 50mm WIDE BLUE ROLL SIZES

PIPE ID	PIPE OD	WRAP LAYERS	MINIMUM HOLE SIZE
40mm	50mm	1	68mm
50mm	55mm	1	73mm
55mm	60mm	1	78mm
65mm	83mm	1	101mm
75mm	90mm	1	108mm
100mm	115mm	1	133mm
125mm	135mm	2	171mm
130mm	150mm	2	186mm
160mm	175mm	2	211mm
200mm	215mm	2	251mm
250mm	300mm	3	354mm
300mm	350mm	3	404mm
350mm	400mm	3	454mm

This table is provided as a guide only. Actual measurements may vary.

INTUMESCENT WRAPS IN A EUROPEAN EN TEST

LEARNING HOW TO APPLY PIPE WRAPS AT PFTC DOVER

NEW ISPC COLLAR: 1 HOUR FIRE PROTECTION

New Envirograf® ISPC pipe collars offer up to one hour fire protection and it can be quickly fixed to the risk side of a room, using the supplied special fixing clips. **ISPC** can be used in both new and retrofit applications to protect UPVC pipes ranging from 45mm to 150mm in size. Installers can easily fit the **Envirograf® ISPC** product, even in those difficult-to-reach areas, with no need for special tools or equipment.

FITTING INSTRUCTIONS

1: Place ISPC collar around pipe on risk side of room.
2: Remove adhesive backing paper from fixing tab and fasten tab to position collar close around pipe.
3: Make holes in wall and insert plugs.
4: Push metal clips over collar with equal spacing between clips.
5: Put screws through clips and fix.

ORDERING REFERENCES

Ref	Pipe ID	Clips
ISPC 45	45mm	2
ISPC 55	55mm	2
ISPC 65	65mm	2
ISPC 75	75mm	2
ISPC100	100mm	3
ISPC150	150mm	3

PRODUCT 13 – INTUMESCENT PIPE COLLAR

DESCRIPTION

The Envirograf® Intumescent Pipe Collar is a surface-mounted circular metal unit for use around pipes (PVC, UPVC, steel, and copper) and electrical cables that pass through fire-rated ceilings or walls. The unit consists of a hinged, two-part metal collar that contains intumescent material. It has a quick-release pin to open the unit for fitting around a pipe or cable, and fixing lugs are fitted for easy attachment to ceilings, floors, or walls. The collar can be reversed, to fit into the floor or wall. Standard finish in brown powder-coating (other colours available). These units are made to give from 1 hour to 4 hours of fire protection, and they are made in various sizes protecting pipes from 45mm external diameter (or narrower), right up to 600mm. Acoustic version available. Special sizes made to order. See also Envirograf® Product 110.

Function

In the event of fire, Envirograf® Product 13 will crush and seal PVC and UPVC pipes as they soften, and will absorb heat from steel and copper pipes to stop heat transfer through walls and floors. It can be fitted around insulated pipes to seal them as the insulation fails and burns away. Flue pipes (thin steel type or aluminium) can be protected by the product's intumescent material filling the gaps where the flue softens. In all cases, the product will stop fire and smoke from penetrating through the fire-rated ceiling or wall, maintaining the integrity.

Main advantages

- Stops penetration of heat/fire/fumes/smoke
- Fix direct to: block/brick/concrete/plasterboard
- Uaffected by water or chemicals.
- Simple to install
- Can accommodate multiple services

PERFORMANCE

Tested with HDPE pipes to BS476 Parts 20 & 22 (1987), giving up to 4 hours integrity. Tested for nuclear power stations resulting in 2 hours of protection. Tested to European standards EN1363/1 (2000) and EN1366/3.

APPLICATION

Prior to fixing, please ensure:

- Access for fitting is available
- Correct area of risk is assessed (double-risk areas may require two collars
- Correct size of collar appropriate to the pipe or service being protected

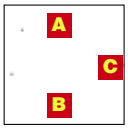
(See also Envirograf® Product 110 for hollow wall fixing).

Fixing

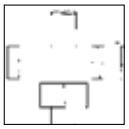
Can be fixed to solid structures with rawlplugs and screws, it is best to pump a small amount of Envirograf® Product 58 (intumescent mastic) into the previously-drilled hole. For hollow plasterboard walls, fix with screws if there are timber noggins to screw to, otherwise use steel toggle fixings.

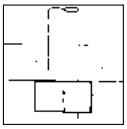
When Specifying

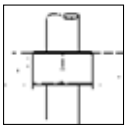
Install Envirograf® intumescent pipe collars to achieve integrity (1-4 hours fire resistance around UPVC pipes and services). Install in accordance with manufacturers' instructions.

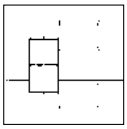


For recessing into walls or ceilings. Fixing clips are just turned around.


Surface-mounted into hollow timber floors


Surface-mounted into ceiling


Recessed into floors and ceilings


Surface-mounted into wall

ORDERING REFERENCES:

Ref	A Int	B Ext	C Deep	Qty Lugs
WPCS 45	47	59	50	2
WPCS 55	57	69	50	2
WPCS 65	74	86	50	2
WPCS 75	87	103	50	3
WPCS100	117	137	50	3
WPCS127	137	161	50	3
WPCS150	167	195	50	4
WPCS175	187	219	50	4
WPCS200	212	248	100	6
WPCS225	237	273	100	6
WPCS250	267	311	100	6
WPCS300	317	369	100	6
WPCS350	365	421	150	6
WPCS400	422	486	150	6
WPCS450	487	563	150	6
WPCS500	527	607	150	8
WPCS600	627	723	150	8

All sizes above in millimetres (mm)

Other sizes can be made to order

PRODUCT 16 – MULTI-PURPOSE BOX WITH DETACHABLE SECTION TO FIT OVER EXISTING SERVICES

DESCRIPTION

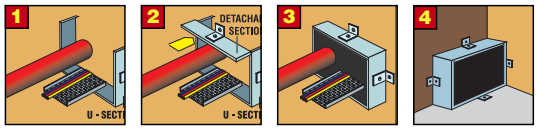
The Envirograf® Multi-Purpose Box is the most versatile of its kind and has been specifically designed for most installation requirements where services pass through fire barrier ceilings, floors, and walls. The product comprises a metal box containing intumescent material, with a detachable section that allows the unit to be used in tight corners. The fixing brackets are adjustable by bending them flat for fitting into corners, or when the box is flush against a floor or ceiling. A fire-resistant sponge smoke seal is supplied with each unit. This is cut with a knife to allow services to pass through. The multi-purpose boxes can be used to seal pipes fitted at angles (X). The multi-purpose box can be recessed into a partition wall (Y) if required, by cutting an aperture to fit the unit and then placing the box into the cavity, allowing the flanges to fit flush against the plasterboard. Skim plaster to finish if required. The smoke seal is only required if you are leaving the opening through the wall or floor. To give smoke protection, fill the wall or floor with sand and cement or Envirograf® Product 44 (PVE/A foam).

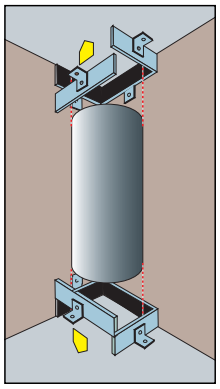
APPLICATION

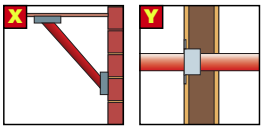
For standard open areas, simply place the box over the services, use the smoke seal if required, and screw into position. If the services are already in place, remove the detachable section, fix the 'U' section first (1) then slide back the detachable section (2) and fix the smoke seal if required (3). When the unit is flush against a ceiling, floor, wall, or corner simply bend the fixing brackets flat and screw into position (4). When using multi-purpose box to fit around existing services in a tight corner, simply remove the detachable section and fix the 'U' section into position. Fixing brackets can be bent flat if required. Replace the detachable section and fix to finish. Insert the smoke seal if required.

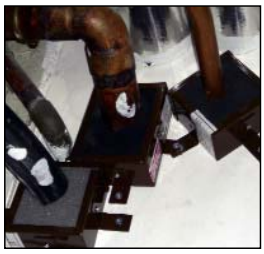
PERFORMANCE

Tested to BS476 Parts 20/22 (1987), achieving 240 minutes integrity. Also tested to stringent European standards EN1363/1 (2000) and EN1366/3.

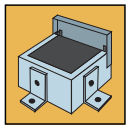




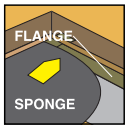




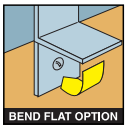
SPECIAL FEATURES


Detachable section, allowing the unit to be used in tight corners


Fire-resistant sponge smoke seal, easily cut for fitting services.



Sponge smoke seal simply slides into the flange section from the front



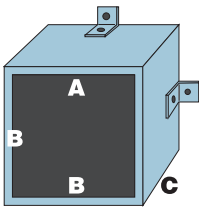
Adjustable brackets, allowing multiple fixing options

ORDERING REFERENCES:

Reference	A Int	B Ext	C Deep
EB 45/ 50	45	67	50
EB 55/ 50	55	76	50
EB 72/ 50	72	93	50
EB 83/ 50	83	105	50
EB115/ 50	115	138	50
EB135/ 50	135	158	50
EB166/ 50	166	196	50
EB166/100	166	196	100
EB185/ 50	185	215	50
EB185/100	185	215	100
EB215/ 50	215	255	50
EB215/100	215	255	100
EB236/150	236	276	150
EB265/150	265	315	150

All sizes above in millimetres (mm)

Other sizes can be made to order



PRODUCT 18 – INTUMESCENT PIPE COVERS

DESCRIPTION

Envirograf® Intumescent Pipe Covers are designed to protect pipes and cables in close proximity to a ceiling or wall, or where they penetrate at awkward angles and prevent use of a regular Envirograf® wrap or pipe collar.

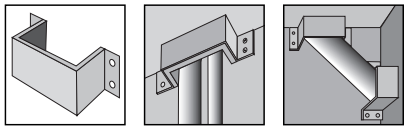
APPLICATION

The intumescent pipe covers simply fit over the services and they are then fixed with screws. U-shaped pipe covers are available for open areas, and special h-shaped units are available for application in difficult corners.

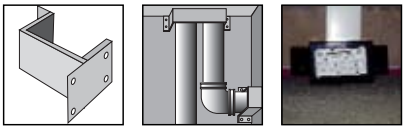
PERFORMANCE

This product has been tested to the procedures and criteria of BS476 Part 22 (1987), during which a fire integrity of 120 minutes was achieved. Also tested to stringent European standards EN1363/1 (2000) and EN1366/3.

U - BRACKET



CORNER BRACKET

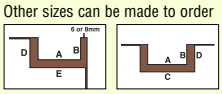


ORDERING REFERENCES:

Ref	A	B	C	D	E
PC 50	58	78	78	88	74
PC 65	75	95	95	105	91
PC 75	88	118	108	128	104
PC100	118	148	148	163	139
PC127	138	168	168	183	159
PC150	168	198	198	213	189
PC175	188	218	218	233	209
PC200	213	243	253	263	241
PC225	238	268	278	288	266
PC250	268	298	308	318	296
PC300	318	348	358	368	346

All sizes above in millimetres (mm)

Other sizes can be made to order



State sizes **ABCD** for all units.
State size **E** for corner units only

PRODUCT 6 – FIRE MORTAR

DESCRIPTION

FM25 is a new two-bag mix consisting of one 21.4kg bag of sand and one 3.6kg bag of fire cement to be mixed uniformly together before adding 2½ litres water. Fire mortar is designed for fire-stopping around building services that pass through floors. For deeper gaps, a rockwool slab can be wedged into the opening, leaving a depth for the mortar according to the protection required. It is essential to fit Envirograf® Product 7 (intumescent wraps) around PVC pipes, cables, or steel pipes.

For 1 to 4 hours of fire protection:–

- leave 25mm from the top of the floor for light loads
- leave 50mm from the top of the floor for standing or walking
- leave 75mm from the top of the floor for heavy loads

For 5 to 6 hours of fire protection:–

- leave 100mm from the top of the floor

APPLICATION

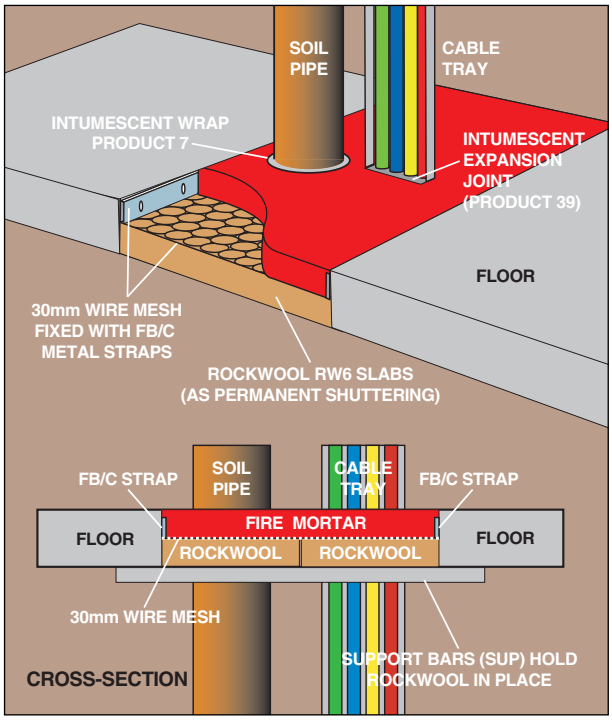
For holes up to 600mm x 900mm, no wire mesh is necessary. For larger holes fit 30mm wire mesh, fixed to the perimeter of the concrete opening or joist using Envirograf® FB/C fixing straps and SUP metal support battens (see diagram). Where PVC pipes, cables and large steel pipes pass through a floor, use Envirograf® Product 7 (intumescent wraps) around the services. Where trunking occurs, use Envirograf® Product 27 (trunking pillows) and Envirograf® Product 29 (cable tray pillows). Where ductwork and cable trays merge, use Envirograf® Product 39 expansion joints.

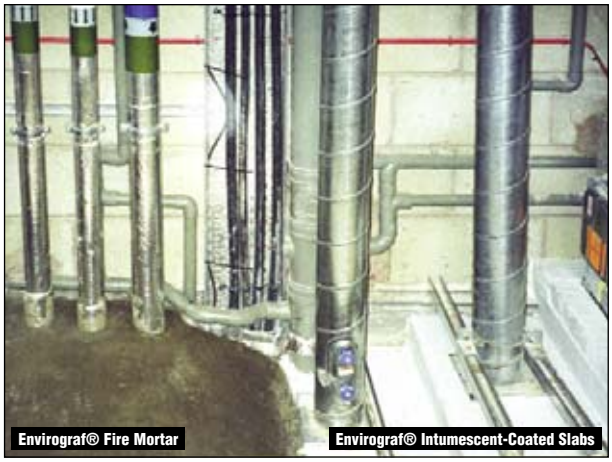
PROTECTION	FM25 COVERAGE
1 - 4 hours	1kg 25mm thick covers 0.02 m²
1 - 4 hours	1kg 50mm thick covers 0.01 m²
1 - 4 hours	1kg 75mm thick covers 0.007m²
5 - 6 hours	1kg 100mm thick covers 0.005m²

NB: Where heavy weights are liable to be left on a floor and an opening in it is to be filled with Fire Mortar, a thickness of 75mm of Envirograf® Product 6 Fire Mortar is required. This will achieve up to 4 hours of fire protection.

MECHANICAL STRENGTH

Once dried hard, the load strength is 6.5 MPa.





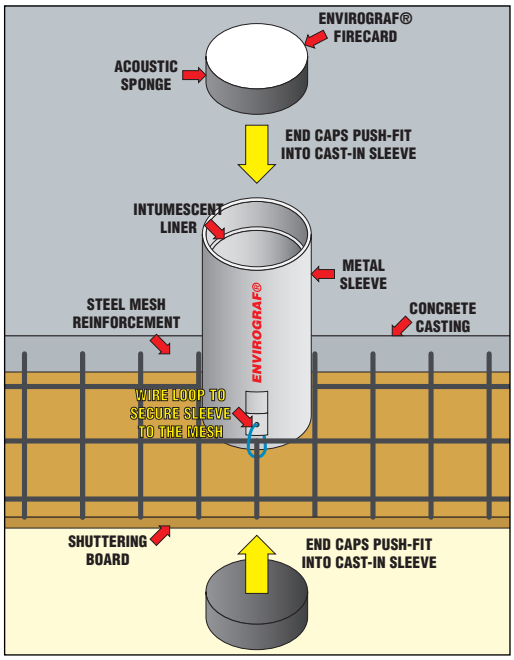
ORDERING REFERENCES:

FM25 Fire Mortar Mix Pack 25kg bag
FM25/A Fire Mortar/Aggregate 31.25kg (FM25 & 6.25kg additive)
4½ kg FM25 will fill a volume of 2¼ litres
PLEASE NOTE: FOLLOW INSTRUCTIONS CORRECTLY

SUPPORTING PRODUCTS:

Product 7 Intumescent wraps
Product 26 Intumescent pads
Product 27 Intumescent trunking pillows
Product 39 Intumescent expansion joints

PRODUCT 12: 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 they 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. After the concrete is set, the end caps are released by scoring around the rim tape with a sharp knife. The 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 ease of maintenance, offering excellent versatility. In a fire, the intumescent liner expands to fill the gap around services and blocks passage of smoke and fire. Acoustic end caps provide excellent attenuation to airborne sound, reducing transmission through the floor. Metal end-caps can be supplied for use after setting, allowing people to walk on or pallett 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).

ORDERING REFERENCES:

CCS 83 To suit pipes up to 76mm
CCS138 To suit pipes up to 116mm
CCS195 To suit pipes up to 166mm
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

PRODUCT 14: INTUMESCENT FAN COVERS GLASS-MOUNTED OR WALL-MOUNTED

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. 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.

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:

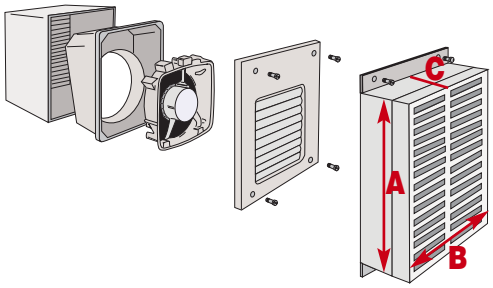
GLASS-MOUNTED

Reference	A	B	C	Diameter
FCG 5	315mm	315mm	150mm	260mm
FCG10	285mm	285mm	140mm	222mm
FCG12	390mm	390mm	170mm	337mm
FCG14	210mm	210mm	50mm	110mm
FCG19	430mm	430mm	200mm	

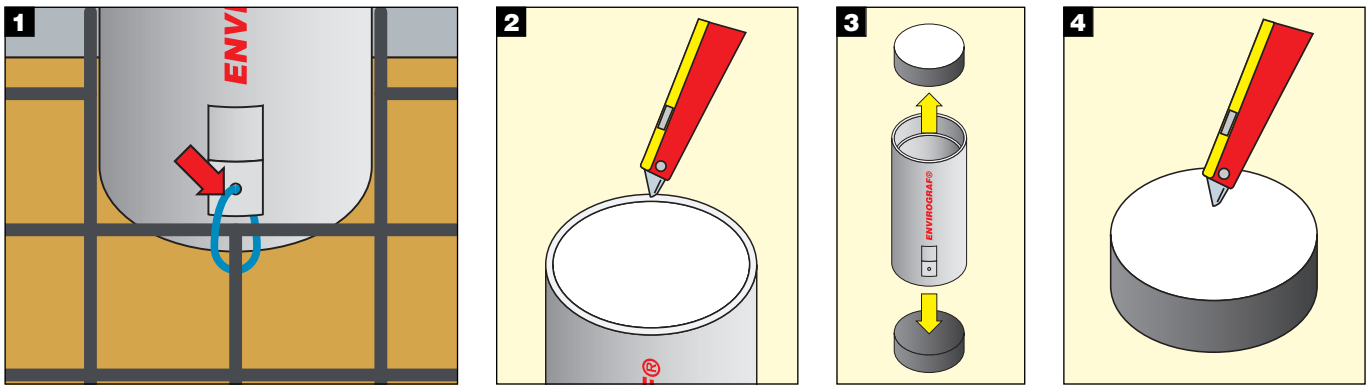
WALL-MOUNTED

Reference	A	B	C
FCW 1	310mm	310mm	20mm
FCW 5	315mm	315mm	150mm
FCW10	285mm	285mm	140mm
FCW12	390mm	390mm	170mm
FCW14	430mm	430mm	40mm
FCW18	210mm	210mm	50mm
FCW19	430mm	430mm	187mm

See illustration below for dimensions A, B, and C
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.
Please state details if this product is required for other brands.
Standard colours: brown or white. Other sizes and colours made to order.



See also Product 33 Firoblok® sleeves for air conditioning and ventilation outlet protection.



FITTING INSTRUCTIONS: (1) secure the Envirograf® cast-in sleeve with loops of wire passed through the fitting lugs and through the steel reinforcement mesh before casting. Immediately after casting the concrete, wipe both end caps with a damp cloth to clear any spilled concrete and allow to set in place; **(2)** release the end caps by scoring around the rim tape with a sharp knife; **(3)** remove the end caps; **(4)** use a sharp knife to cut the end caps to accommodate services and re-install into the cast-in sleeve to complete the job.

PRODUCT 90: FIRE AND SMOKE DROP CURTAIN (AUTOMATIC OR MANUAL RESET)

BOLTON HOSPITAL ANTE-NATAL RECEPTION

DESCRIPTION

A fire and 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. For industrial or domestic use, such as counters, conveyor belts, reception areas, etc. The frame is powder-coated and the curtain roller is motorised. The impregnated silicon curtain cloth can be kept clean by wiping over with a damp cloth.

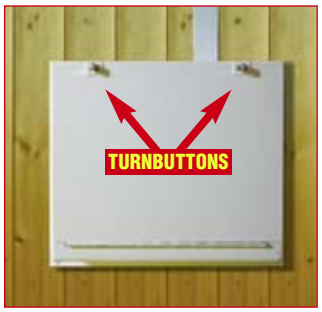
USE

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.

PRODUCT 20: ELECTRICAL CONSUMER UNIT AND 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 **Electical cover unit (see price list for more details)**


CONTROL BOX AND RECEPTION CURTAIN


TYPICAL BAR CURTAIN AT CROWN HOTEL

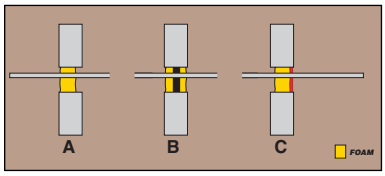

CONCEALED MOTORISED CURTAIN: KILWORTH HOUSE


STAIRCASE CURTAIN: ABBEY HOUSE CARE HOME

PRODUCT 44: PVE/A FOAM

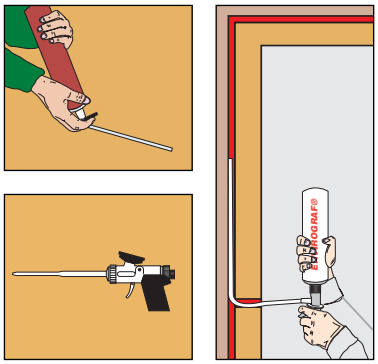
This is a non-inflammable polyurethane foam that emits virtually no toxic fumes or gases and expands up to 40 times its original volume on application (approximately 0.04m³). Supplied in 750ml environmentally-friendly aerosol spray can (PVE/A) for application by tube or 750ml screw-top can for use with industrial trigger gun (PVE/A/G). Envirograf® PVE/A/S solvent MUST be used in conjunction with this product for cleaning purposes, to avoid the foam setting in the gun and/or tubes, thus prolonging their working life.

Envirograf® PVE/A Foam is supplied with a small quantity of red intumescent cement so that the face can be trimmed and coated with the red colour to show all fire officers and building control officers that it is Envirograf® PVE/A fireproof foam. Each lid contains five self-adhesive labels printed 'Envirograf® PVE/A fireproof foam'. The PVE Foam is not affected by UV light. This product was tested to BS476 Part 22 (1987), achieving an integrity of 130 minutes.

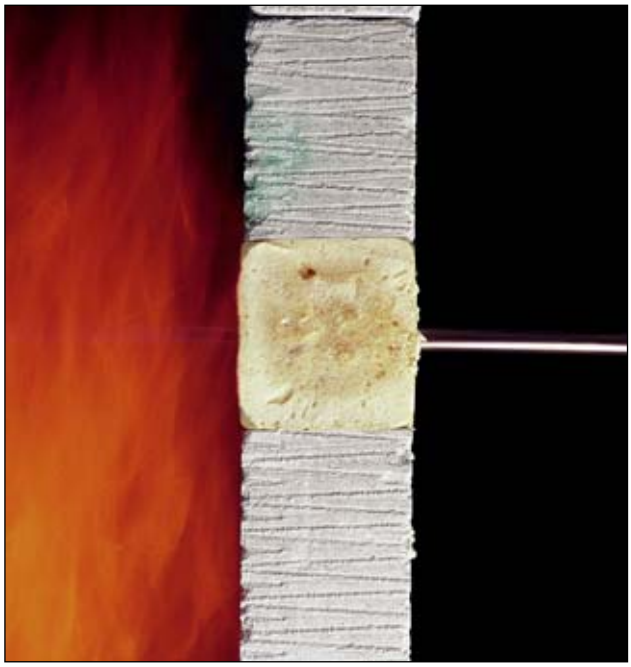


The foam is designed to fill awkward or small openings around services, and as a filling material for door and window frames etc. The following fire test results have been achieved:

A: PVE/A foam fitted a hole 55mm wide x 215mm deep x 830mm high in block wall. It provided 105 minutes protection to BS476 Parts 20/23.
B: PVE/A foam faced with intumescent red coating filled a 100mm wide opening and provided 93 minutes protection to BS476 Part 22 (1987).
C: A facing of Product 63 intumescent cement, provided 120 minutes of protection to BS476 Part 20 (1987).



An Envirograf® trigger gun unit is available for easy application of the PVE/A Foam. This enables full application control and, when fitted with a long plastic tube, will enable the user to apply the foam to areas directly above (e.g.) ceilings and floors or behind door frames.

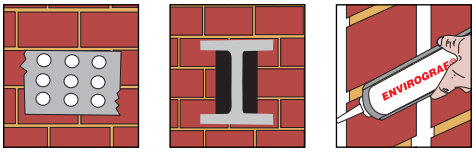


ORDERING REFERENCES:

PVE/A	**750ml aerosol with applicator tube**
PVE/A/G	**750ml aerosol for use with industrial applicator**
PVE/A/GT	**Trigger applicator for use with PVE/A/G industrial aerosol**
PVE/A/S	**Solvent cleaner (supplied in 150ml or 500ml)**

PRODUCT 62: SILICONE SEALANT

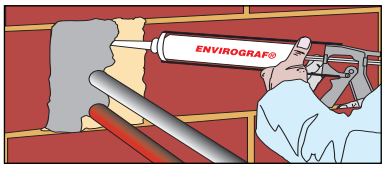
A flexible white or clear silicone sealant which, on curing, is like rubber in consistency. For use at joints between many building elements and materials, giving a water-tight and air-tight seal. For use in steel, brickwork, blockwork, concrete, ceilings, walls and partitions. The product was used subjected to fire resistance tests employing the general procedures and criteria of BS476 Part 22 (1987). It was used for sealing around a number of penetrations and expansion joints, achieving integrity ratings up to 240 minutes. Tested to BS476 Parts 20/22 (1987), achieving 4 hours



ORDERING REFERENCES: SIL (310ml)

PRODUCT 63: INTUMESCENT CEMENT FILLER

A ready-mixed intumescent cement in 310ml tubes. On curing, the filler sets hard like normal cement and does not crack. In a fire, it will expand to five times its original volume and give up to 240 minutes protection. Ideal for applying around pipes, cables, services, behind door frames (especially steel frames) and around vent ducting. Also used as a top coat over Envirograf® PVE/A foam (Product 44), and for filling cracks in ceilings. Tested to BS 476 Part 22 (1987), achieving 3 hours. This product has been used in conjunction with PVE/A foam around cables and pipes, in a fire resistance test employing general procedures and criteria of BS476 Part 22 (1987), achieving an integrity of 130 minutes.



ORDERING REFERENCES: CF (310ml tube)

THE WORLD OF ENVIROGRAF®
ELECTRICAL PROTECTION

PROBLEM

WITHOUT GASKETS

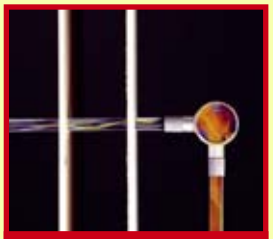
WITHOUT GASKETS

WITHOUT GASKETS

WITHOUT PROTECTION

SOLUTION

WITH GASKETS



WITH GASKETS

WITH GASKETS

WITH PROTECTION

REGIONAL OFFICE

MANY PRODUCTS TESTED
4
TO 4 HOURS FIRE PROTECTION