



# ENVIROGRAF®



## INTUMESCENT SYSTEMS FOR ELECTRICAL PENETRATIONS DESIGNED TO COMPLY WITH THE 16th EDITION IEE REGULATIONS

Products 26, 27, 29, & 30 Data Sheet



**PROVIDING SOLUTIONS TO THE PROBLEM OF UNPROTECTED ELECTRICAL SERVICES PENETRATIONS THAT REMOVE A FIRE BARRIER'S INTEGRITY, LEADING TO POTENTIAL FIRE HAZARDS**



**PROTECTING PROPERTY  
PROTECTING LIVES**



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# Envirograf®



## IDENTIFICATION & DESCRIPTION

### INTRODUCTION

With the introduction of the revised 16th Edition of the IEE Regulations, the installation of electrical services should be carried out with fire stopping as an important part of the process of any wiring operation in a building. Walls, ceilings, and floors all play a vital role in containing fire, stopping it from spreading, maintaining the safe use of the means of escape and enabling people to evacuate in the case of a fire.

The 16th edition recognises that penetrations routinely made by electricians such as for socket and switch boxes, BESA boxes, ceiling roses, cable trays, and trunking seriously compromise the integrity of these important barriers and, therefore, fire sealing must now be included in the specification and installation of all electrical services. Environmental Seals Ltd has developed a range of intumescent fire seals designed to comply with the new requirements. They offer an economical solution and are simple to install.

### ADVANTAGES

- Stops fire penetration through electrical services
- Easy to install
- Economical
- Not affected by moisture
- Rot-proof
- Maintenance-free
- Allows present and future maintenance
- Environmentally-friendly (CFCs and HCFCs are not used in the manufacture of Envirograf® products)
- To protect your legal liability.

## REQUIREMENTS

### STANDARDS AND APPROVALS

Envirograf® products have been tested employing the general procedures and criteria of BS476 at UKAS-approved test centres.

### COMPATIBILITY

Envirograf® products are compatible with average building materials and are non-toxic.

### HEALTH AND SAFETY

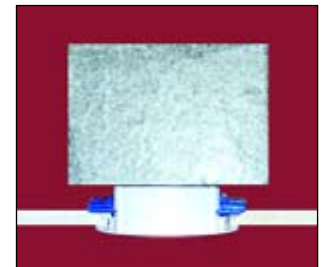
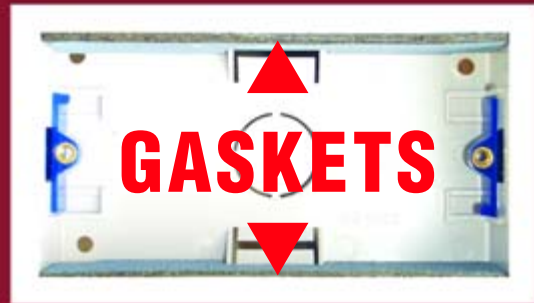
Envirograf® products pose no known hazard to health.

### ENERGY RETENTION

Envirograf® electrical service seals can offer a measure of insulation.

The photographs below show typical electrical wiring installations that should be sealed against fire.

## NEW – DRY LINING BOXES WITH FITTED GASKETS



## SYSTEM SPECIFICATIONS

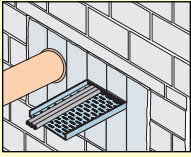
All Products are Patented

PENETRATION	TYPES OF STRUCTURE	SYSTEM	PROPERTIES	
			Commercial	Domestic
Socket Boxes (Metal and Plastic)	Plasterboard/brick/block	Gasket	●	●
Switch Boxes (Metal and Plastic)	Plasterboard/brick/block	Gasket	●	●
Dry Lining Boxes	Plasterboard	Gasket	●	●
Conduit Boxes	Plasterboard/brick/block	Gasket	●	●
Marshall Tufflex	Plasterboard	Cover	●	●
Ceiling Rose Boxes	Plasterboard/brick/block	Gasket	●	●
All Ceiling Roses	Plasterboard/brick/block	Gasket	●	●
Cable tray	Plasterboard/brick/block	Pillow/Sponge	●	●
Trunking (Steel and PVC)	Plasterboard/brick/block	Pad/Pillow	●	●
Downlighters	Plasterboard/brick/block fire rated suspended ceilings	Protective Hood (see separate data sheet)	●	●
Recessed fluorescent fittings	Plasterboard/brick/block fire rated suspended ceilings	Protective Tents (see separate data sheet)	●	●



**PRODUCT 1: INTUMESCENT FIRE & SMOKE STOP PILLOWS**

Use: For packing into openings around cable trays and other services.  
Will not overheat cables.



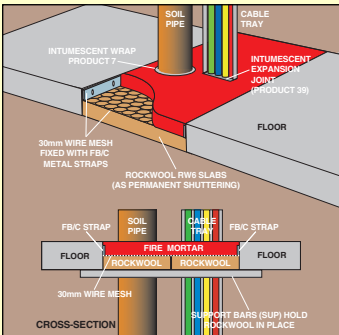
**PRODUCT 2: INTUMESCENT FIRE STOP BLOCKS**

Use: For openings where regular maintenance is required, as blocks can be removed and re-installed.



**PRODUCT 4: INTUMESCENT-COATED SLABS**

Use: For larger openings where service penetrations require sealing. Rockwool slabs and non-fibrous slabs for computer areas and sterile areas.



**PRODUCT 6: FIRE MORTAR**

Use: For larger openings where service penetrations require sealing, floor areas where a load bearing capacity is also required.



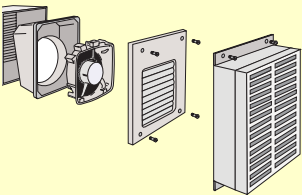
**PRODUCT 7: INTUMESCENT WRAPS**

Use: For cables and pipe sealing. From 15mm to 600mm diameter.



**PRODUCT 13: COMBINATION UNIT PIPE/CABLE SLEEVES**

Use: A surface mounted unit for cable and pipe sealing.



**PRODUCT 14: INTUMESCENT FAN COVERS**

Use: To protect fan penetrations in both walls and glass.



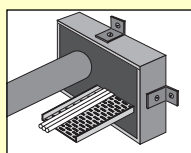
**PRODUCT 16: MULTI-PURPOSE BOX**

Use: For cables and pipe sealing.



**PRODUCT 18: CABLE TRAY & PIPE COVERS**

Use: For larger service protection.



**PRODUCT 30: INTUMESCENT GASKETS AND ACOUSTIC PROTECTION FOR ELECTRICAL BOXES**

Use: For maintaining integrity where electrical boxes are used. There is also a sponge cover with acoustic shielding properties.



**PRODUCT 31: TENTS FOR LIGHT FITTINGS**

Use: For maintaining the ceiling integrity where recessed fluorescent fittings are used. There is also a new type with acoustic shielding properties.



**PRODUCT 32: DOWNLIGHTERS COVERS**

Use: For maintaining the ceiling integrity where recessed light fittings are used. There is also a new type with acoustic shielding properties.



**PRODUCT 32: FIRE CAGES FOR DOWNLIGHTERS**

Use: For maintaining ceiling integrity where recessed light fittings are used and accessible from above. There is also a new type with acoustic shielding properties.



**PRODUCT 34: INTUMESCENT FIRE/SMOKE GRILLES**

Use: For ceilings, doors, ducts, and walls where ventilation is required. Will close when the fire alarm is activated. Power-independent activation available (eg: thermal or spring).



**PRODUCT 35: MG & MGL INTUMESCENT GRILLES**

Use: For doors, walls, ceilings and ventilation ducting where ventilation is required. 73 minutes fire protection.



**PRODUCT 44: PVE/A FOAM**

Use: For filling in holes around cables and pipes.



**PRODUCT 58: INTUMESCENT ACRYLIC MASTIC**

Use: For filling in holes around cables and pipes. Does not affect or overheat cables.



**PRODUCT 59: INTUMESCENT PUTTY**

**PRODUCT 61: INTUMESCENT STOPPER**

Use: For filling in holes around cables and pipes.



**PRODUCT 63: INTUMESCENT CEMENT FILLER**

Use: For filling in holes around cables and pipes. When used to face PVE/A foam, can offer up to 2 hours of fire protection.

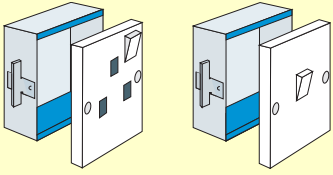


**PRODUCT 110: INTUMESCENT SLEEVE**

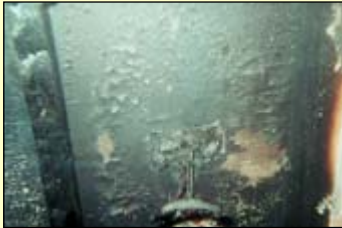
Use: Most economical sleeve for cables and pipes, supplied in 500mm lengths to be cut to size. Can be used over mains supply to keep electrical supply working in a fire.

# INTUMESCENT GASKETS AND SEALS FOR CABLE TRAYS AND TRUNKING

## STRUCTURE TYPE

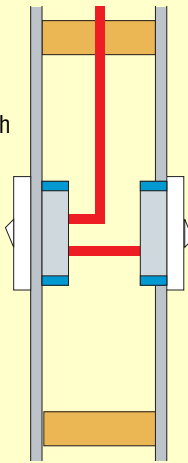


Gaskets are simply placed into both plug and switch boxes using the double sided backing tape

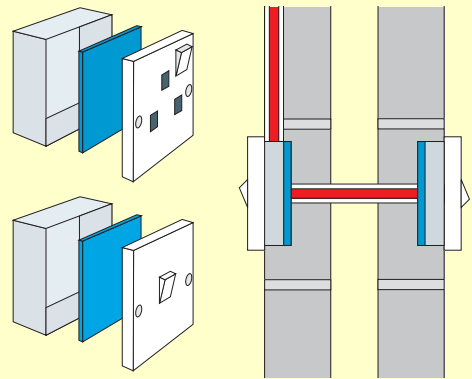


Double socket outlet after testing

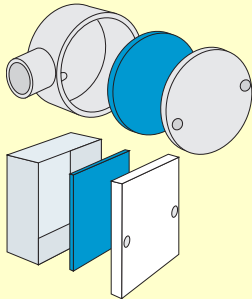
### PLASTERBOARD



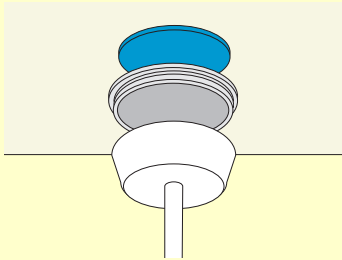
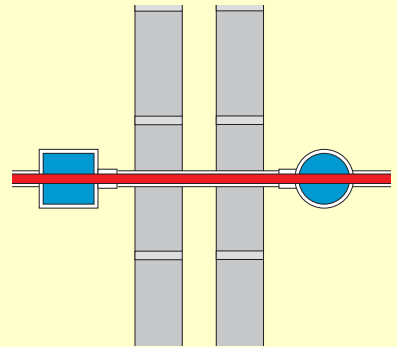
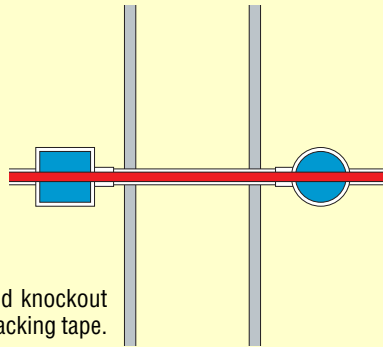
### BLOCK/BRICK



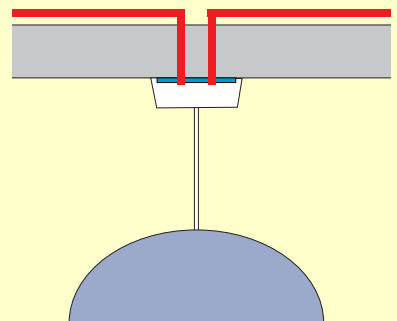
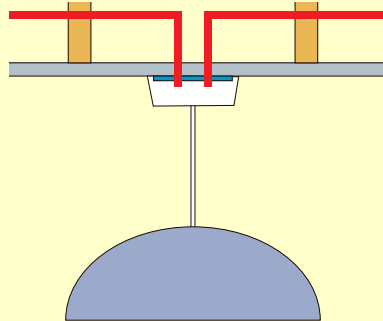
Gaskets are simply placed into both plug and switch boxes



Gaskets are simply placed into BESA and knockout boxes using the attached self-adhesive backing tape. Shown fitted into PVC or steel conduit.

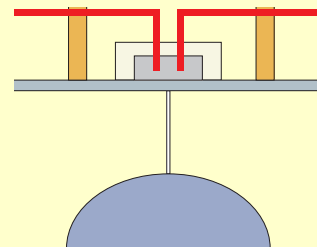
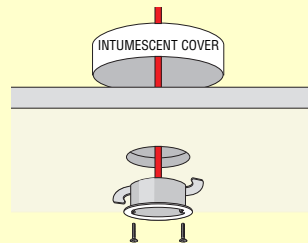


Gaskets are placed between ceiling rose fittings and the ceiling



Intumescent unit for use with Marshall-Tufflex ceiling rose fitting for plasterboard fixing.

Contact the sales department for further details



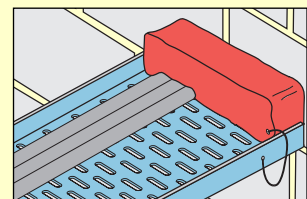
## PADS AND PILLOWS FOR PVC AND STEEL TRUNKING



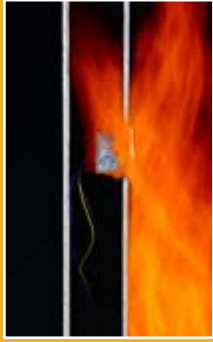
Product 26: intumescent pads for trunking allow maximum cable use



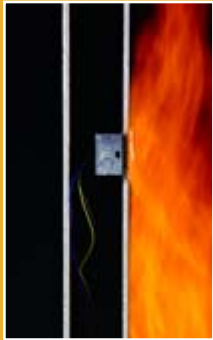
Product 27: intumescent removable trunking pillows allow maintenance



Product 29: removable cable tray pillow allows for maintenance



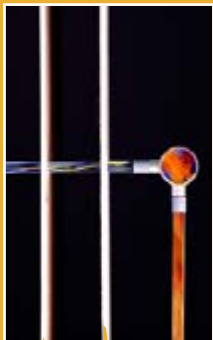
**PROBLEM:**  
Without gasket protection



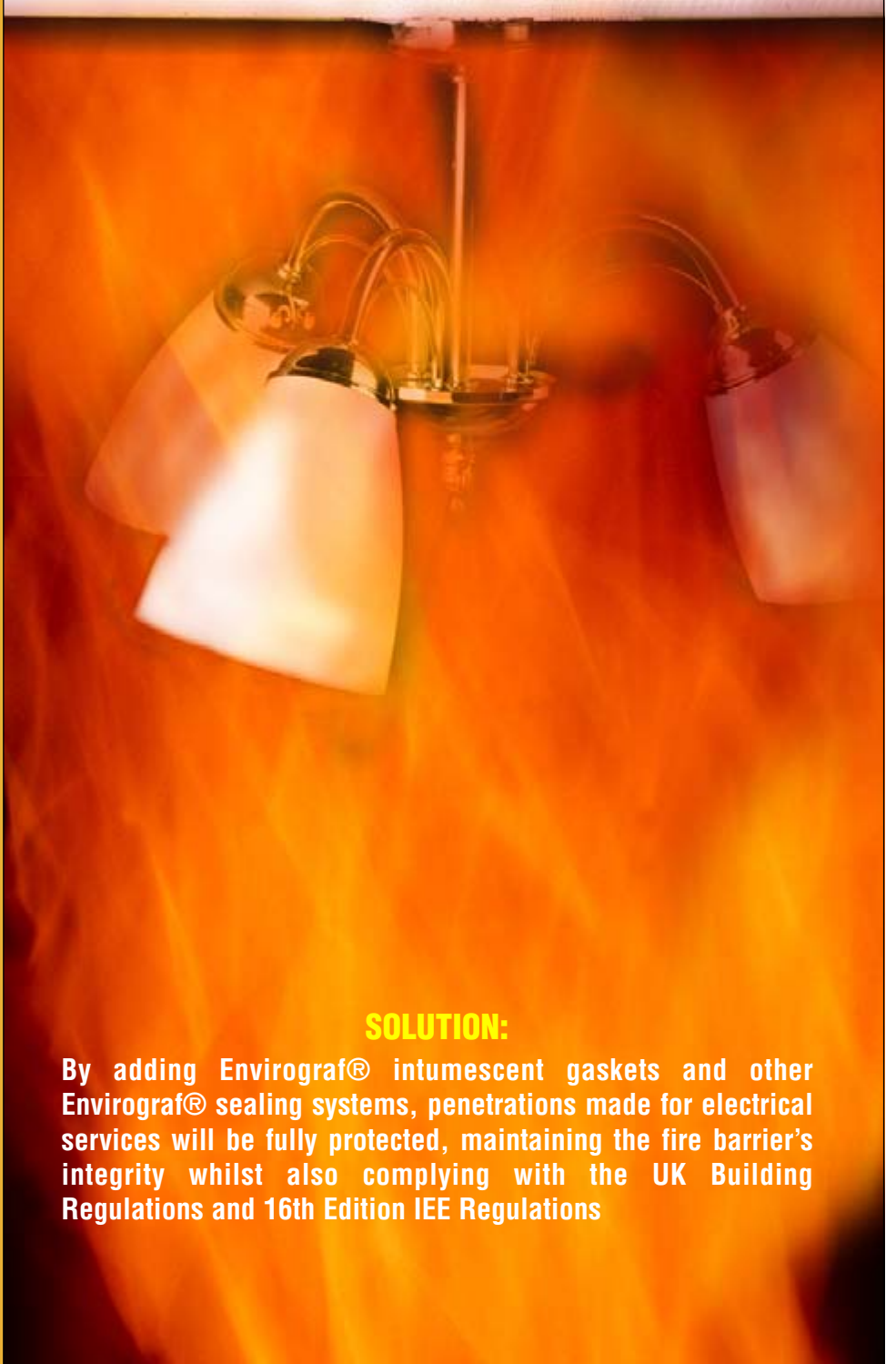
**SOLUTION:**  
With gasket protection



**PROBLEM:**  
Without gasket protection



**SOLUTION:**  
With gasket protection



**SOLUTION:**

By adding Envirograf® intumescent gaskets and other Envirograf® sealing systems, penetrations made for electrical services will be fully protected, maintaining the fire barrier's integrity whilst also complying with the UK Building Regulations and 16th Edition IEE Regulations



## TECHNICAL DESCRIPTION

### COMPOSITION

Envirograf® electrical service seals are manufactured from various materials, depending on the exact product, but all include a unique multi-directional intumescent material.

### WEIGHT

Envirograf® electrical service seals are all lightweight and will have no effect on ceilings, floors and walls where installed.

## PERFORMANCE

### STRUCTURAL & MECHANICAL

Envirograf® electrical service seals are made of durable materials, but it is advisable to take care not to damage them in any way. Once removed from packaging they should be installed immediately.

### FIRE RATING

The intumescent gaskets, pillows and other products mentioned in this data sheet have been fully tested to BS476: Parts 20/22 (1987), achieving up to 4 hours of fire protection. Contact the sales department at head office or your regional office.

### MOISTURE

Envirograf® electrical service seals are not affected by water or humidity.

### ENVIRONMENTAL & BIOLOGICAL

Envirograf products are resistant to fungi, insect attack and bacterial action and are not susceptible to rodents and other vermin. They contain no CFCs or HCFCs.

### THERMAL

Envirograf® electrical service seals are not affected by different degrees of temperature, cold, heat or frost.

### OPTICAL

Envirograf® electrical service seals are impervious to UV light.

### ACOUSTIC

Envirograf® electrical service seals can enhance the acoustic protection of the barrier.

## INSTALLATION

### LABOUR

Envirograf® electrical service seals should be installed by fully qualified electricians as they are fitted during electrical work. They are simple and quick to install.

## MAINTENANCE AND DISPOSAL

### MAINTENANCE

No maintenance of the Envirograf® electrical service seals is required.

### DEMOLITION

When a building is demolished, the Envirograf® electrical service seals can simply be disposed of. No special disposal methods are necessary.

## SIZES AND ORDERING REFERENCES

### PRODUCT 26: INTUMESCENT TRUNKING PADS

**IP** State reference IP and the sectional dimensions of the trunking (See price list for full range. Special sizes made to order)

### PRODUCT 27: INTUMESCENT TRUNKING PILLOWS

**TP** State reference TP and the sectional dimensions of the trunking (See price list for full range. Special sizes made to order)

### PRODUCT 29: INTUMESCENT CABLE TRAY PILLOWS

**TE** State reference TE and the sectional dimensions of the tray (See price list for full range. Special sizes made to order)

### PRODUCT 30: INTUMESCENT ELECTRICAL GASKETS

#### Gaskets for Standard Metal Boxes

<b>BEG</b>	Standard BESA Boxes
<b>DPG</b>	Gasket Set for Double Metal Box
<b>SPG</b>	Gasket Set for Single Metal Box
<b>CRG</b>	Gasket for Ceiling Rose

#### Gaskets for Dry Lining Boxes

<b>SSB</b>	Gasket Set for Single Shallow Box	2 gaskets per set
<b>DSB</b>	Gasket Set for Double Shallow Box	2 gaskets per set
<b>SDB</b>	Gasket Set for Single Deep Box	2 gaskets per set
<b>ddb</b>	Gasket Set for Double Deep Box	2 gaskets per set
<b>TDB</b>	Gasket Set for Twinned Single Deep Box	4 gaskets per set
<b>MTC</b>	Intumescent Cover for Marshall-Tufflex Circular Dry Lining Box	

#### Dry Lining Boxes with fitted Intumescent Gaskets

<b>GBOX/S</b>	Single Shallow Box with factory-fitted intumescent gaskets
<b>GBOX/D</b>	Double Shallow Box with factory-fitted intumescent gaskets
<b>GBOX/T</b>	Twin Shallow Box with factory-fitted intumescent gaskets
<b>GBOX/DS</b>	Single deep box with factory-fitted intumescent gaskets
<b>GBOX/DD</b>	Double deep box with factory-fitted intumescent gaskets

## REGIONAL OFFICE: