



Envirograf®
Protecting the irreplaceable



PRODUCTS 20, 30 & 146
Innovators - Developers - Manufacturers
Passive Fire Prevention Products

PASSIVE FIRE PROTECTION PRODUCTS TO PROTECT ELECTRICAL INSTALLATIONS

Products which must be used in order to satisfy IEE regulations



FIRE PROTECTION FOR PLASTIC & METAL CONSUMER UNITS



PRODUCT 20 - ELECTRICAL CONSUMER UNIT METAL COVER

PVC CONSUMER UNIT

The New Amendment 3 to BS EN 7671:2008 (requirements for electrical installation - IET Wiring Regulations) came into force in January 2016, requiring metal consumer units to be fitted in all new- build properties.

This requirement is not only for metal consumer units, but also where all-plastic conduits and cables are to be used.

Envirograf® Intumescent gaskets are to be fitted inside the consumer units (SCU for top & bottom entry & SCU/B for back entry) to prevent fire from spreading through the penetrations and knock-outs.



Envirograf® ECU units are made in different sizes to suit your consumer unit & distribution board.



The units are lined with Envirograf® fireproof paper covered with a PVC material. This product is designed to prevent fire damage and, more importantly, to allow evacuation from the flat or building, saving lives.



During an indicative fire test the unit started to burn very vigorously which resulted in thick black smoke.



During an indicative fire test the unit prevented from spread of fire, completely sealing the unit all round.



After the test was stopped, you can see that the PVC unit has been completely destroyed by fire.

Although this is a massive step towards improving the safety aspects of electrical installations, it will also put many building crews and electricians on the spot, by making rushed replacements, a harsh and costly possibility.

To address that ahead of time, we at Envirograf® have been working hard to provide a solution that will allow for quick and easy access to the consumer unit, whilst providing the fire protection necessary to satisfy the new regulations. The Envirograf® Product 20 does just that. It's a quick and affordable alternative to replacing the entire consumer unit with a new model.



REF	INTERNAL			EXTERNAL		
	WIDTH	HEIGHT	DEPTH	WIDTH	HEIGHT	DEPTH
ECU2	340mm	480mm	180mm	390mm	530mm	180mm
ECU3	580mm	280mm	180mm	630mm	330mm	180mm
ECU4	390mm	280mm	180mm	440mm	330mm	180mm
ECU5	330mm	260mm	130mm	380mm	310mm	130mm
ECU6	410mm	245mm	140mm	460mm	295mm	140mm

PRODUCT 20 - SLM INSULATION LINER



This lining will prevent the metal consumer unit from becoming live due to loose connections & live supply touching the case.

SLM1 Insulation liner 100mm x 300mm

SLM2 Insulation liner 150mm x 300mm

SLM3 Insulation liner 100mm x 400mm

SLM4 Insulation liner 200mm x 300mm



SCU INTUMESCENT STRIP FOR TOP AND BOTTOM OPENINGS



We can also supply an intumescent strip which will protect the cable entry, and seal off in the event of a fire inside the consumer unit.

SCU1 Intumescent strip, 50mm x 300mm for metal consumer unit

SCU2 Intumescent strip 75mm x 300mm for metal consumer unit



SCU/B INTUMESCENT STRIP

Intumescent back gasket which will protect the cable entry from the back and seal off in the event of a fire.



SCUB1 Intumescent strip 60mm x 100mm

SCUB2 Intumescent strip 60mm x 150mm

SCUB3 Intumescent strip 100mm x 150mm

FIRE PROTECTION FOR PLASTIC & METAL CONSUMER UNITS

PRODUCT 20 - ENVIROBURST AUTOMATIC FIRE SUPPRESSION SYSTEM

EnviroBurst Automatic Fire Suppression System consists of a sealed thermoplastic tube which will begin to soften when exposed to high temperatures. Once the fire reaches 70°C the tube will burst, releasing a liquid extinguishant into the heart of the fire.

The system is ideal for protecting enclosed areas which pose a high risk of igniting, such as distribution boards or consumer units which can be prone to overheating. It is designed to be compact and lightweight, meaning it is easily adaptable to a wide range of purposes.

EnviroBurst tubes are available in four sizes:

EBU0	150mm
EBU1	195mm
EBU2	300mm
EBU3	505mm
other sizes made to order	

Most standard consumer units will only require EBU1 up to 250mm wide. For larger distribution boards EBU2 300mm wide or EBU3.

The quickest and safest way of stopping a fire in the Consumer unit.



EnviroBurst extinguishing the flames

FIXING INSTRUCTIONS

The tube units are supplied with fixing clips, nuts and bolts. Fixings should be placed about 30-40mm from both ends.



Remove the cover



Drill 2 holes near the top



Fit the clips around the tube & bolt to the inside of the cover



Refit the cover

YOU NOW HAVE A FIRE PROTECTED CONSUMER UNIT

**Existing plastic consumer units will be in use for many years,
but they keep catching fire.**



Fire in the consumer unit just before tube bursting



Plastic Consumer unit extinguished by EnviroBurst

**Enviroburst tube fitted in the lid will kill the fire,
saving lives & property.**

FIRE PROTECTION FOR SOCKETS & SWITCH BOXES

PATENTED

PRODUCT 30 - GASKETS FOR RECESSED BOXES

Gaskets must be fitted to all electrical boxes

2015 EU made a new criteria for recessed plastic & metal boxes. All plastic cables & conduits fitted are a fire hazard. The new test for 90 minutes to EN1364-1:2015 in accordance with EN13501-2:2007 +A1:2009 fire classification. Intumescent gaskets must be fitted to all boxes, socket outlets, switches, cooker etc.

Envirograf® make gaskets for all EU boxes, Scandinavian boxes & all UK boxes.

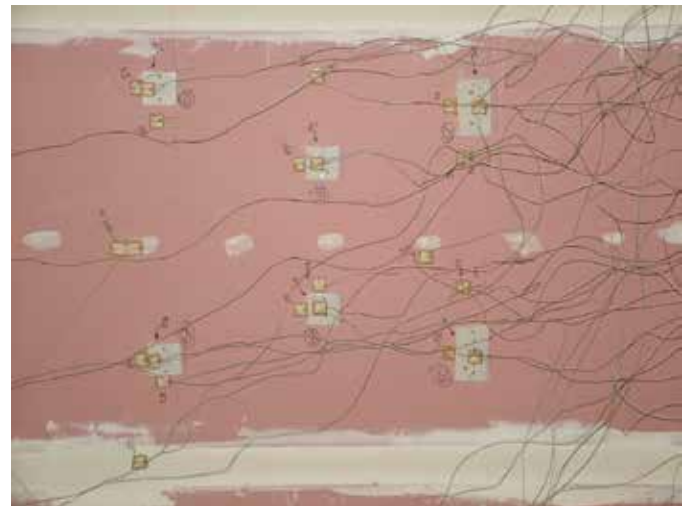
UK, Elko and Schneider boxes were tested to the new EN standard



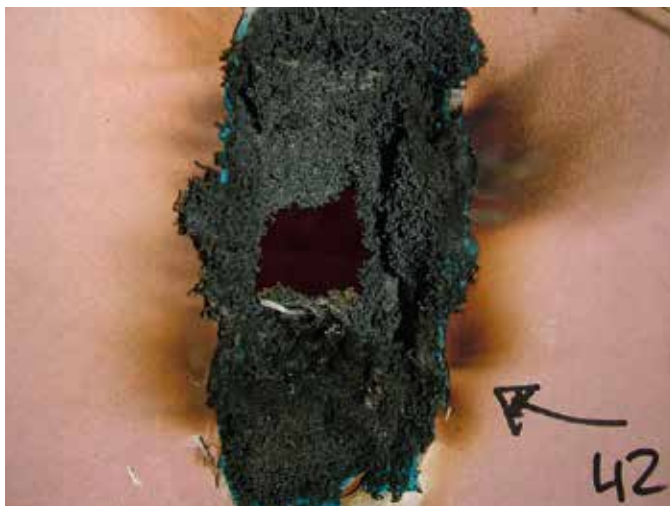
Gaskets fitted before the test



Inside the furnace during the EN test



Preparation for the test



Expanded gasket after the fire test

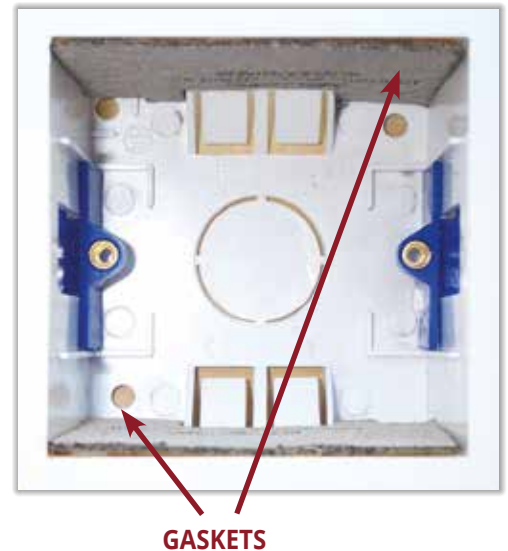
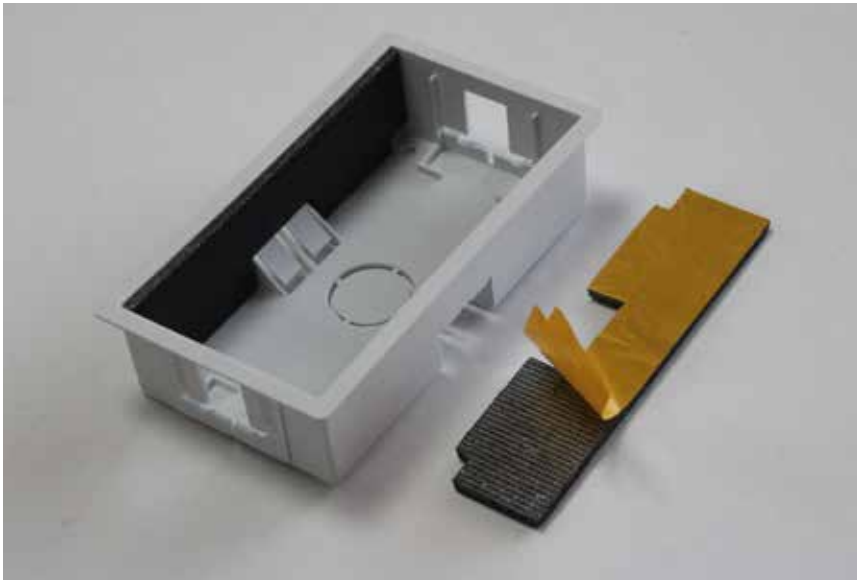


Protected socket after 90 minute test

PRODUCT 30 - FIRE PROTECTION GASKETS FOR DRY LINING BOXES

Since BS476 Part 22 1987 and now 2015 all Europe including UK must have gasket in all recessed boxes to meet 90 minutes test requirements.

**Meeting new
EN1364-1:2015 test standard**



Double box gasket

Ordering References

Gaskets for plastic boxes

SSB	Single shallow box
DSB	Double shallow box
SDB	Single deep box
DDB	Double deep box
TDB	Twinned single deep box
3DB	Triple deep box

Performance

Envirograf® gaskets gave up to 90 minutes integrity and insulation in dry-lining boxes when tested to EN 1364-1:2015.

Plastic boxes in ceilings/walls have also been tested to European Standards

EN1365-2 (1999),

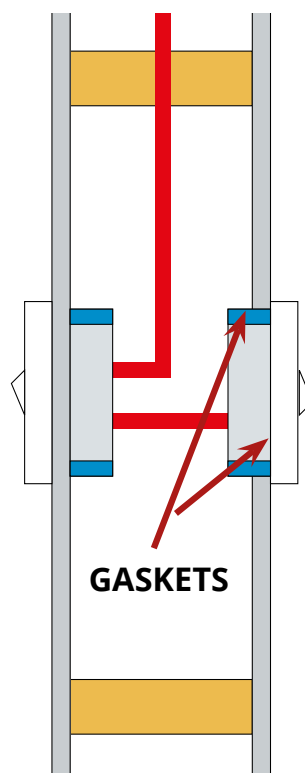
NEN6069 (2005) and

EN136401 (1999) for 84 mins.

EN13501-2 (2007) for 108 mins.



Gaskets are simply placed into plastic boxes and fixed to top and bottom of box with the self-adhesive backing tape. Shown here fitted into PVC box.



INTUMESCENT FIRE & ACOUSTIC PROTECTION GASKETS

PRODUCT 30 (FST)

FIRE & ACOUSTIC PROTECTION GASKETS FOR DRY LINING BOXES

Meeting EN1364-1:2015 test standard BS/EN ISO 140 Part 4

Unprotected openings for electrical sockets will reduce the acoustic performance of walls and compromise the resistance to fire. To comply with Documents B and E of the current UK Building Regulations, the integrity of the wall must be maintained, and this can be easily achieved with the Envirograf® Fire and Sound Trap (FST). This versatile product will encase airborne and impact sound and, in the event of a fire, the product will entrap the flames within the socket box for up to two hours, ensuring that there is no penetration of flames and smoke through the socket and into the wall cavity.

This streamlined product, with its double action design, will help to save lives and combat both airborne and impact sound. It is extremely flexible and it can be easily fitted in seconds to all types of electrical dry lining switches and socket boxes, thus saving valuable installation time. The Envirograf® Fire and Sound Trap (FST) can be fitted internally or externally to UPVC socket boxes and it has been tested in accordance with the principles of BS EN1366-3, achieving two hours of fire protection.



THE MAIN FEATURES OF THIS VERSATILE PRODUCT ARE:

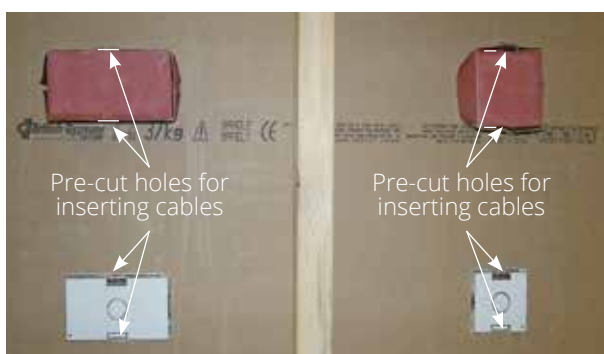
- IT ONLY TAKES SECONDS TO FIT
- OFFERS BOTH ACOUSTIC AND FIRE PROTECTION
- COMPLIES WITH DOCUMENTS B & E OF CURRENT UK BUILDING REGULATIONS
- TESTED TO PRINCIPLES OF BS EN1366-3, ACHIEVING 2 HOURS FIRE RATING
- TESTED TO BS EN ISO 140 PART 4 MEETING THE REQUIREMENTS OF DOCUMENT E OF UK BUILDING REGULATIONS
- TESTED BY BTC FOR IMPACT AIR BOURNE SOUND



FITTING INSTRUCTIONS



EXTERNAL FIT



INTERNAL FIT

FITTING THE EXTERNAL FIRE & SOUND TRAP

The external FST is pushed into the aperture whilst maintaining a grip on a flap. Peel off DS tape on the bottom and push the supplied pins onto the plasterboard as shown above left.

Do the same at the top. Once fixed cut off surplus material of the flaps as shown on the left.

FITTING THE INTERNAL FIRE & SOUND TRAP

The internal FST is simply pushed into the box. Peel off the backing paper from the adhesive strips and press firmly to grip the box.

The cover plate is fixed to the box in the normal way.

ORDERING REFERENCES

EXTERNAL FIRE & SOUND TRAP (Supplied with fixing pins)

- FST/EXT/S/S&D** SINGLE SHALLOW & DEEP BOXES
- FST/EXT/D/S&D** DOUBLE SHALLOW & DEEP BOXES

INTERNAL FIT (NO PINS NECESSARY)

- FST/INT/S/S** SINGLE SHALLOW BOX
- FST/INT/D/S** DOUBLE SHALLOW BOX
- FST/INT/S/D** SINGLE DEEP BOX
- FST/INT/D/D** DOUBLE DEEP BOX

} to suit boxes
25-34mm deep

} to suit boxes
45mm deep

INTUMESCENT FIRE PROTECTION GASKETS RANGE

PRODUCT 30 - FIRE PROTECTION GASKETS FOR RECESSED METAL BOXES

Meeting new EN1364-1:2015 test standard

Following changes to regulations, all of Europe and the UK must have gaskets in all recessed boxes to meet 90 minutes test requirements.



Where conduits pass through fire-rated ceilings and walls, it is a requirement to terminate each side with a BESA or universal box fitted with intumescent gaskets to stop fire penetrating. It is also a requirement to fit intumescent gaskets in the back of metal switch/socket boxes where they are back-to-back and cables pass through the wall.

All dry lining boxes and metal boxes fitted in dry-lining walls must have intumescent gaskets fitted to comply with the 18th Edition IEE Regulations.



All recessed boxes in plaster board or brick to block walls, must be fitted with Intumescent to meet Document B and IET Regulations. Without gaskets, a fire in a room or area the socket and cables could catch fire allowing the flames to penetrate through conduits and walls. Intumescent gaskets expand and seal off the fire.

An intumescent gasket to adhere inside the metal box, can have holes cut into the gaskets to accommodate tubes and cables. For both single and double boxes, with larger gasket for cooker boxes etc. The gasket has double sided tape on the back to adhere to the inside of the metal box.

Performance

Tested to BS476 Part 22 (1987) and achieved 4 hours in solid walls and 71 minutes in cavity walls. Achieved 90 minutes when tested to EN1364-1 2015. Acoustic protection to Robust Details & 18th Edition IET 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) & EN 1365-2 (1999).

ORDERING REFERENCES

Gaskets for standard metal boxes

BEG Standard BESA Boxes

DPG Gasket for Double Metal Box

SPG Gasket for Single Metal Box

INTUMESCENT FIRE & ACOUSTIC PROTECTION GASKETS FOR RECESSED METAL BOXES

PRODUCT 30

FIRE & ACOUSTIC PROTECTION GASKETS FOR METAL BOXES



Insert the metal box into the wall.



Peel off the protective tape.



Insert the gasket and press firmly to attach to the box.



Cut the sponge around the cable.



Job done. You now have fully fire and acoustic protected metal box.



Single metal box set

Both come pre-fitted together.



Double metal box set

An intumescent gasket to adhere inside the metal box, can have holes cut into the gaskets to accommodate tubes and cables. For both single and double boxes, with larger gasket for cooker boxes etc. The gasket has double sided tape on the back to adhere to the inside of the metal box. The acoustic sponge gasket has corners cut to allow quick & easy application onto the box.

Performance

Tested to BS476 Part 22 (1987) and achieved 4 hours in solid walls and 71 minutes in cavity walls. Acoustic protection to Robust Details & 18th Edition IET 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) & EN 1365-2 (1999).

ORDERING REFERENCES

Fire and acoustic protection for metal boxes

SPG/APS/26	Single metal box, 26mm deep
SPG/APS/37	Single metal box, 37mm deep
SPG/APS/47	Single metal box, 47mm deep
DPG/APD/26	Double metal box, 26mm deep
DPG/APD/37	Double metal box, 37mm deep
DPG/APD/47	Double metal box, 47mm deep
CBG/APC	Cooker box

INTUMESCENT FIRE & ACOUSTIC PROTECTION GASKETS

PRODUCT 30 FOR RECESSED METAL BOXES IN DRY LINING WALLS

FIRE & ACOUSTIC PROTECTION GASKETS FOR QUAD METAL BOXES

IDEAL FOR FITTING BEHIND HANGING TV SETS/SCREENS FOR USE WITH 4 FLUSH, METAL DOUBLE BOXES

**Meeting new
EN1364-1:2015 test standard**

Envirograf Fire and Acoustic cover and gaskets, custom made to fit the K14101 set of electrical double boxes. The acoustic sponge to fit to the outside of the boxes, across the back and around the 4 sides of the unit with double sided strip to adhere to the boxes. All metal boxes with Envirograf gaskets or fire and acoustic gaskets, can be installed in dry lining or lath and plaster walls. They will still give the same fire integrity as in block walls.



Tested at Chiltern to BS47 Part 22 (1987) for 69 minutes integrity and insulation.

Adhere to outside of metal quad box using the strips provided

Acoustic Protection to Robust Details & 18th 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) & EN 1365-2 (1999)

The Intumescent Red Gaskets come in 2 halves for ease of adhering them to the inside of the metal boxes.

Acoustic Performance:
BS EN ISO 140-3: 1995 63dB (-2,-8)

ORDERING REFERENCES

Fire & Acoustic protection for Quad Metal Box

DPG/K1N Quad Metal Box 47mm Deep



INTUMESCENT SLEEVES

PRODUCT 30 - FIROBLOK® INTUMESCENT SLEEVE FOR ELECTRICAL AND PLUMBING SERVICES (BOTH PVC & STEEL)



Firoblok® conduit sleeve (BESA box)



Firoblok® conduit sleeve (coupling)

FIROBLOK® RANGE ADVANTAGES

- 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

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.

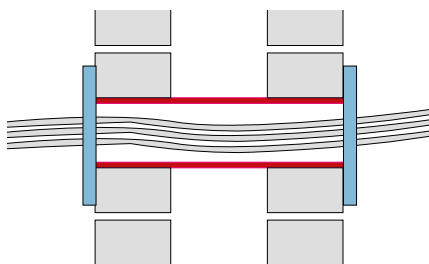
FOR THE PLUMBER

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.

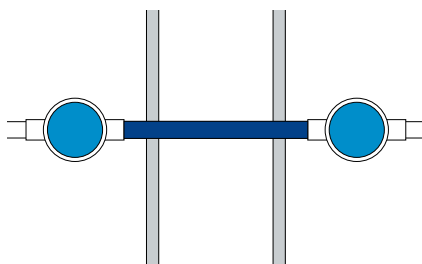
ORDERING REFERENCES

110C/20 20mm Firoblok® conduit sleeve, 300mm long

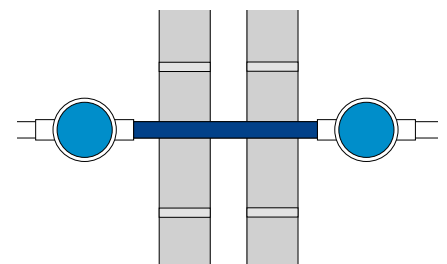
110C/25 25mm Firoblok® conduit sleeve, 300mm long



Cable protection in hollow walls including smoke seals.



Firoblok® conduit sleeve fitted into a hollow dry wall



Firoblok® conduit sleeve fitted into a block cavity wall

INTUMESCENT FIRE & ACOUSTIC PROTECTION GASKETS

PRODUCT 146 - EN/F FLEXIBLE FILLER KIT FOR PIPES AND CABLES

EN/F is a unique sealant offering 2 hour fire protection for PVC, steel pipes and cables up to 66mm in diameter, in block and plasterboards.

Our new EN/F Kit consists of three 310ml tubes of specially formulated intumescent sealant. Two of which (EN/F1) are a dark grey, powerful, intumescent graphite compound (which does not affect the pipes and cables) that expands in a fire sealing the service hole. The EN/F2 tube is a white intumescent sealant for use as a decorator's finish, which can be over painted when fully cured.

The kit was tested numerous times in house and at the end of 2013 at Efectis Holland. Their test rig consisted of: a hollow plasterboard, and block wall, with cables and plastic pipes with the diameter up to 66mm.

Where the plasterboard wall had service openings through we pressed in newspaper to stop the sealant from dropping down the back.

The test was a success, with the EN/F giving over 2-hours fire integrity and from 110 down to 60 minutes insulation. After 2 hours when the EN/F had met the test criteria we cut back the plasterboard to discover that the newspaper wasn't even burnt, just slightly discoloured, after which the test was successfully concluded.

EN/F kit is ideal for electricians,

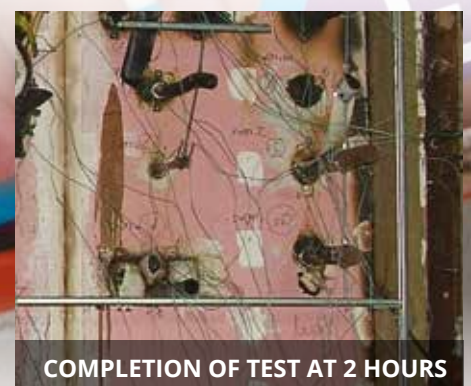
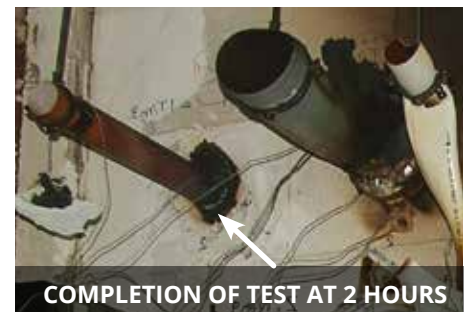
plumbers, work departments and maintenance professionals to carry in their vans or store in their workshops, providing a quick and convenient ability to seal any service openings they work on. The sealing consists of two stages:

- 1) Special formulated graphite mastic
- 2) White intumescent mastic to face off ready for decorations

The kit can be used for aluminium, copper, plastic and steel pipes up to 66mm in diameter, as well as cables (including: armoured, MICC and flexible type cables) up to 66mm in diameter.

It can be used in both plasterboard stud partitioning and solid substrate surfaces, like brick, block and concrete walls and ceilings.

The EN/F1 and EN/F2 are water-based materials, which become water resistant once cured.



Kit contains:

2 x EN/F1

1 x EN/F2

TESTED FOR 2 HOURS FIRE PROTECTION AND INSULATION IN PLASTERBOARD HOLLOW WALLS AND BRICK, BLOCK WALLS
TESTED TO EN 1366-3 (2009)

INTUMESCENT FIRE & ACOUSTIC PROTECTION GASKETS FOR RECESSED METAL BOXES

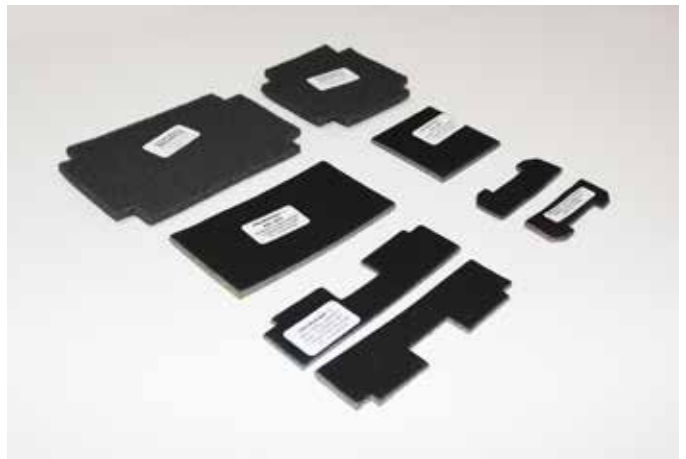
PRODUCT 30

FIRE TESTS ON GASKETS FOR METAL ELECTRICAL BOXES IN HOLLOW PLASTERBOARD WALLS

Our extensive range of expanding intumescent gaskets and linings are ideal for a wide range of standard electrical boxes. Suitable for either single or double socket boxes placed in brickwork, blockwork or plasterboard walls, they are lightweight and flexible and can accommodate wires and cables by cutting holes where required. Trimmed to size to fit most socket boxes, they have self-adhesive backing for easy application.

BESA or universal boxes must have intumescent gaskets fitted to stop fire penetrating. Furthermore, metal socket boxes must have gaskets installed where they're back-to-back; this also applies if cables pass through walls.

An acoustic version of this gasket is also available.



After constructing a hollow plasterboard partition wall, we fire tested various combinations of metal boxes, extenders and gaskets, some mounted level with the face of the plasterboard and others set back. The photographs on the following pages show before and after images of each individual set up.

Tested to BS476 Part 22 (1987) and achieved 4 hours in solid walls and 71 minutes in cavity walls.
Achieved 90 minutes when tested to EN1364-1 2015. **Test carried out on 5th May 2022**

INSIDE FURNACE

A

B

C

D

E

- A** - 47mm double socket + 1x25mm extender + gasket, mounted flush with plasterboard
- B** - 47mm double socket + 2x25mm extenders + acoustic sponge gasket, set back from plasterboard
- C** - 47mm double socket + acoustic sponge gasket, mounted flush with plasterboard
- D** - 47mm single socket + gasket, set back from plasterboard
- E** - 47mm double socket + gasket, mounted flush with plasterboard

OUTSIDE FURNACE

F

G

H

J

K

- F** - 47mm double socket + gasket, mounted flush with plasterboard
- G** - 47mm single socket + gasket, set back from plasterboard
- H** - 47mm double socket + acoustic sponge gasket, mounted flush with plasterboard
- J** - 47mm double socket + 2x25mm extensions + gasket, set back from plasterboard
- K** - 47mm double socket + 1x25mm extension + gasket, mounted flush with plasterboard

PRODUCT 30 - REF DPG

INSIDE FURNACE

A

A - 47mm double socket mounted flush with the face of the plasterboard
+ 1x25mm extender + gasket

Before the test



After the test



PRODUCT 30 - REF DPG/APD/47 (AVAILABLE FOR 26, 37 & 47 MM DEEP)

INSIDE FURNACE

B

B - 47mm double socket set back from the face of the plasterboard
+ 2x25mm extenders + acoustic sponge gasket

Before the test



After the test



PRODUCT 30 - REF DPG/APD/47 (AVAILABLE FOR 26, 37 & 47 MM DEEP)

INSIDE FURNACE

C

C - 47mm double socket mounted flush with the face of the plasterboard + acoustic sponge gasket

Before the test



After the test



PRODUCT 30 - REF SPG

INSIDE FURNACE

D

D - 47mm single socket set back from the face of the plasterboard + gasket

Before the test



After the test



PRODUCT 30 - REF DPG

INSIDE FURNACE

E

E - 47mm double socket mounted flush with the face of the plasterboard
+ gasket

Before the test



After the test



PRODUCT 30 - REF DPG

OUTSIDE FURNACE

F

F - 47mm double socket mounted flush with the face of the plasterboard + gasket

Before the test



After the test



PRODUCT 30 - REF SPG

OUTSIDE FURNACE

G

G - 47mm single socket set back from the face of the plasterboard + gasket

Before the test



After the test



PRODUCT 30 - REF DPG/APD/47 (AVAILABLE FOR 26, 37 & 47 MM DEEP)
OUTSIDE FURNACE

H

H - 47mm double socket mounted flush with the face of the plasterboard
+ acoustic sponge gasket

Before the test



After the test



PRODUCT 30 - REF DPG

OUTSIDE FURNACE

J

J - 47mm double socket set back from the face of the plasterboard
+ 2x25mm extensions + gasket

Before the test



After the test



PRODUCT 30 - REF DPG

OUTSIDE FURNACE

K

K - 47mm double socket mounted flush with the face of the plasterboard
+ 1x25mm extension + gasket

Before the test



After the test



NOTES



YOUR FIRST LINE OF DEFENCE AGAINST FIRE

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**WORLD-LEADING DESIGNERS AND
MANUFACTURERS OF PASSIVE FIRE PRODUCTS**