



Product number: **27**
Intumescent Trunking Pillows

HEALTH & SAFETY DATA INFORMATION

This is a compressible intumescent pillow with retention wire and fixing tag. Envirograf® intumescent trunking pillows are indicated in situations where protection from cold smoke, as well as fire protection, is required in metal or plastic trunking that passes through floors and walls. The retention wire and tag are fitted inside the trunking as a safeguard against removal of the pillow during maintenance.

This product comprises of the following materials and therefore is supported by the following Health & Safety Data Sheets:

- (Appendix 1) Intumescent Material
- (Appendix 12) Polyurethane foam (Grey)
- (Appendix 3) Glass cloth
- (Appendix 2) Fire proof sponge

*The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the user's own assessment of workplace risk as required by other health and safety legislation.



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HEALTH & SAFETY DATA SHEET

Appendix 1

MULTIGRAF INTUMESCENT MATERIAL

1. IDENTIFICATION OF THE PREPARATION AND COMPANY

PRODUCT NAME: Multigraf Intumescent Material
MANUFACTURER/SUPPLIER: Envirograf
ADDRESS: Envirograf House, Barfrestone, Nr. Dover, Kent, CT15 7JG
TELEPHONE/FAX: 01304 842555 01304 842666
EMERGENCY PHONE NUMBER: 01304 842555

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CONSTITUTION

Mineral Wool Fibre	20-70	%	by	weight
Exfoliating Graphite	20-60	%	by	weight
Organic binder (including adhesive coating)	5.0-30	%	by	weight

3. HAZARDS IDENTIFICATION

Cutting through the material and surface scuffing may release small amounts of airborne fibre, clay and carbon dust which are mechanically irritant to skin, eyes and upper respiratory system.

Based on animal studies, excessive exposure to man made mineral fibre dust may cause lung damage (fibrosis) and tumours.

As with any dust, pre-existing upper respiratory symptoms and lung diseases may be aggravated.

4. FIRST AID MEASURES

SKIN: Rinse affected areas with water and wash gently with soap. Do not use detergent.

EYES: Flush eyes with large quantities of water, Have eye bath readily available in areas where eye contact may occur. Seek medical attention if irritation continues.

INGESTION: Drink plenty of water. Seek medical advice.

INHALATION: Remove to fresh air, drink water and clear throat and blow nose to evacuate fibre/dust.
Seek medical attention.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use extinguishing agent suitable for type of surrounding combustible materials. Do not inhale products of combustion.

6. ACCIDENTAL RELEASE MEASURES

Store product in original wrapping until required for use.
 Do not allow dust to be wind blown. Do not use compressed air to blow dust or fibres.
 Unwanted product should be collected and stored in sealed bags. Dust/fibre should be removed using a suitable vacuum cleaner with HEPA exhaust air filtration and disposal collection bags; used bags to be sealed before disposal. If sweeping is required the area should be damped down with water before brushing

7. HANDLING AND STORAGE

HANDLING: Keep dust generation to a minimum.
 STORAGE: Store dry and cool. Keep in original wrapping until required for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

APPLICABLE OCCUPATIONAL EXPOSURE LIMITS:

MAN MADE MINERAL FIBRE:	*ME	2.0 fibres/ml & 5 mg/m; (8 hr TWA)
FINE CARBON DUST:	*OES	3.5 mg/m; (8 hr TWA) and 7 mg/m; (STEL) *(UK Health & Safety Executive - OEL EH40/98)

RESPIRATORY PROTECTION:	Wear disposable dust respirator (eg. 3M 8810 or equivalent).
HAND PROTECTION:	Use of gloves is recommended.
EYE PROTECTION:	Wear goggles or safety glasses with side shields. Do not wear contact lenses.
SKIN PROTECTION:	Wear overalls that are loose fitting at the neck and wrists.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Flexible Grey fibrous mat with black speckle
DENSITY:	200 - 500 kg/m;
EXPANSION:	Rapid volumetric expansion occurs when product is heated above 100°C
FLAMMABILITY:	Material will sustain combustion for a short period until organic binder (and SAB coating) is burnt out or resulting expansion self-extinguishes.

10. STABILITY AND REACTIVITY

STABILITY / CONDITIONS TO AVOID:	Stable.
MATERIALS TO AVOID:	Strong oxidizing agents, strong alkalis and hydrofluoric acid.
HAZARDOUS DECOMPOSITION PRODUCTS:	Combustion products are HRO, CO, COR and hydrocarbons.

11. TOXICOLOGICAL INFORMATION

The International Agency for Research on Cancer (IARC) has classified Mineral Wool Fibre as possibly carcinogenic (Group 2B).

12. ECOLOGICAL INFORMATION

This product will remain stable over time with the inorganic components remaining inert.

13. DISPOSAL CONSIDERATIONS

Waste is not classified as a hazardous waste and may be disposed of at a normal licensed industrial waste site. Local regulations should be considered. Waste should be bagged or suitably contained for disposal to prevent any dusts being wind blown during disposal.

14. TRANSPORT INFORMATION

Not regulated for Transport. Ensure that dust is not wind blown during transportation.

15. REGULATORY INFORMATION

LABELLING		
DANGER CLASSIFICATION	-	
CONTAINS:		-
R PHRASES:		-
S PHRASES:		-
NATIONAL REGULATIONS:	-	

16. OTHER INFORMATION

Further information regarding working with man made mineral fibres and measurement techniques may be obtained by referring to Guidance Note EH46 1990 and NDHS59 1998 published by the UK, Health & Safety Executive.

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DATA INFORMATION SHEET FIRE PROOF SPONGE Appendix 2

SECTION 1 INGREDIENTS

Fire Proof Sponge is manufactured by post treatment of flexible polyurethane with flame retardants, particulate filler and a polymeric bonding agent

SECTION 2 PHYSICAL & SAFETY DATA

Appearance	Cellular solid, usually black
<i>Typical Physical Properties</i>	
Density (kg/m ³)	90 - 100
Hardness	130 - 180
Tensile strength (Newton's) Min	70
Elongation at break % Min	90
<i>Typical Flammability Properties</i>	
BS476: Part 5	Non ignition
BS476: Part 6	Fpi<12
BS476: Part 7	Class '1'
BS476: Part 6+7	Class '0'

SECTION 3 LABELLING AND CONVEYANCE

Does not classify for conveyance or supply under the Carriage of Dangerous Goods (Classification, packaging and labelling), and Use of Transportation Pressure Receptacles Regulations 1996.

SECTION 4 PROTECTIVE MEASURES

Ventilation	No ventilation is required but precautions may be required if material is involved in operation which may produce dust such as baffling.
Respiratory Protection	Not necessary.
Eye Protection	Wear protective goggles when process generates dust.
Protective Clothing	Not required.

SECTION 5 MEASURES IN CASE OF ACCIDENT & FIRES

In case of spillage	Pick up or sweep up as for any other inert material.
Extinguish Media	Water, CO ₂ , foam.
In case of fire	Under extreme temperatures, Sponge will decompose and omit toxic gases. Sound alarm, evacuate building. Fire fighters should wear positive pressure, self contained breathing apparatus.

First Aid Procedures:

Ingestion	No adverse effects anticipated.
Eye Contact	Mechanical effects only, irrigate with water to remove dust.
Skin	No adverse effects anticipated.
Inhalation	No adverse effects anticipated.

SECTION 6 TOXICITY & HEALTH HAZARD DATA

Occupational Exposure Limits	None
Ingestion	Not harmful if swallowed
Eye Contact	Unlikely - dust may cause irritation due to mechanical action
Skin Contact	Solid - is non irritating
Inhalation	No fumes

SECTION 7 ECOLOGY DATA

Degradation	In water the product should not present problems due to its extremely low solubility. In soil, almost inert, may slowly biodegrade due to bacterial and fungal activity.
CFC Content	CFC's are not used in any Sponge.
Disposal:	The disposal of waste foam should comply with local and government regulations, ie. Approved land fill or approved incineration.

SECTION 8 FURTHER INFORMATION

The levels of fire resistance are detailed in Section 2. If a sufficient large ignition source is used the polymeric content of the product will degrade and toxic gases and heat will be generated.

This product is classified as non hazardous as defined in Chemical (hazard information and packaging for supply) Regulations 1994 (CHIP2).

It is recommended that the following Health and Safety guidance booklet is referred to *HS(G)92 Safe Use and Storage of Cellular Plastics.



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DATA SHEET

Appendix 3

Description	Woven glass fabric Starch weave locked
Ends/cm	18.9
Picks/cm	11.1
Weave	4 end satin
Thickness	0.40 mm
Wt/m ²	430 g/m ²
Warp count	1360 d'tex
Weft count	1360 d'tex
Fibre type	Cont. fil glass
Filament diameter	9μ
Warp tensile strength	960 N/cm
Weft tensile strength	720 N/cm
Finish	Starch weave lock

Note : All figures quoted are nominal values

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DATA INFORMATION SHEET
Polyurethane Flexible Foam (Grey)
Appendix 12

SECTION 1: Product Identification

Product name: Polyether PUR, polyester PUR foam. HR (High Resilient) PUR foam. Viscoelastic

SECTION 2: Physical & Safety Data

Composition: Polyurethane polymer.

Chemical description: Poly-addition product of isocyanates, Polyether/polyester polyols and water, Controlled by catalysts, stabilizers and other substances, resulting in a cellular Polyurethane foam. The isocyanate and polyol are completely reacted during manufacture and foam, as supplied, contains no free isocyanate.

Appearance: Cellular flexible foam.

SECTION 3: Labelling & Conveyance

Does not classify for conveyance or supply under the Carriage of Dangerous Goods (Classification, packaging and labelling), and Use of Transportation Pressure Receptacles Regulations 1996. **Regulatory Information:** No labelling is currently required for this product by existing EU Directives on Classification, Packaging and Labelling of Dangerous Substances.

SECTION 4: Physical Properties

Physical form/appearance: Solid, voluminous material, more or less elastic.
Colour: Varies according to manufacture.
Specific gravity: 10-600 kg/m³
Solubility in water: Insoluble
Odour: None or mild odour
Flash ignition point: Between 315_ to 370_
Decomposition temperature: Above 180_
Thermal energy: 28 000 KJ/kg
Stability and reactivity: The product is stable at temperatures between -40_ and +12
Auto-ignition point: Between 370°C to 427°C (ASTM D 1929)

SECTION 5: Measures in case of Accident & Fires

Fire Hazard:	The product is a combustible material and causes, when burning, intense heat and dense smoke.
Melting Point:	The product can, when heated also melt and flammable decomposition products can be generated. In a fire, decomposition products such as carbon black, carbon monoxide, carbon dioxide, gaseous hydrocarbons and nitrogen containing products can be generated in various concentrations depending on the combustion conditions. Also corrosive gases could be generated if foam grade contains flame-retardants.
Suitable Fire Extinguishers:	Water. CO ² , dry powder, liquid foam.
Human protection in large fires:	Fire fighters should use self-contained breathing apparatus.
Further fire information:	Terms like “is flame retarded” or “contains flame retardants” are sometimes used to describe improved ignition resistance in small-scale tests and do not reflect hazards in large-scale fire conditions.
Storage & Processing:	Because of the fire risks associated with certain processing operations on block foam (e.g. hot-wire cutting, crumbing, solvent lamination, etc) it is advisable to seek expert guidance on fire precautions that need to be in place.

SECTION 6: Toxicity & Health Hazard Data

Oral:	There is no evidence that PU foam is toxic orally.
LD50 (oral-rats)	>5000 mg/kg.
Inhalation:	Chronic inhalation of polyurethane dust particles could cause lung infection, airway obstruction and fibrosis.
Skin contact:	No adverse effects known following contact with PU foam.
Eye contact:	Dust particles can cause mechanical irritation. Rinse with water to remove dust.
Microbiological contamination:	PU foam is sterile when manufactured.

Protective measures in Handling, storage and processing. PU foam at normal temperature presents no risk to health. Special protective equipment and clothing is not necessary when handling foam, since it does not irritate the skin, eyes or respiratory system except in those processes where dust is produced.

Ventilation:	Provided there is adequate general ventilation, no special precautions are necessary for most handling and cutting operations.
Ventilation during some Operations:	Local exhaust ventilation is necessary for some operations i.e. where dust is produced from buffing and flocking operations or where fumes are produced in flame laminating, heat forming and hot wire cutting.
Storage:	Store away from heat sources (match, cigarette, open fire, electrical heater, etc). UV rays may cause surface discoloration. This does not affect the foam qualities.
Eye protection:	Protective goggles should be worn for processes which generate dust.
Protective clothing:	Not required.
Other measures:	No specific measures are needed at all for fully cured PUR foam. Gloves should be used when handling fresh foams.

SECTION 7: Ecology Data

Biodegradability: Dependent on the type of PU foam, the product is not degradable or degrades slowly.

Additional ecological data: In case of a fire with standard foam, the particles that fall in the water are harmless. They are sieved out of the water and/or disintegrated in the water treatment plant. Living organisms in the water are not endangered.

SECTION 8: Transport Information.

Labelling: PU foam is not classified for conveyance or supply under the Carriage of Dangerous Goods (classification, packaging and labelling) and Use of Transportable Pressure Receptacles Regulations 1996. The product is not classified as hazardous for any mode of transportation under current EU/UN regulations by applying the appropriate test method.

Measures: No special steps need to be taken for the transportation of PU foam.

SECTION 9: Disposal Considerations.

Production trim: Trim polyurethane foam and off-cuts can usually be recycled by several methods if uncontaminated by extraneous matter.

Post Consumer Waste: A recycling option exists via rebonding if a series technical and economical conditions are met. If recycling is not possible, scrap or post consumer PU foam waste can be disposed of at licensed landfill sites or by incineration under controlled conditions. Advice on the preferred method should be sought from the Local Waste Regulation Authority. Legislation: Under EU environmental Regulations and Directives, there are no requirements for the disposal of standard foam.

Composition and Chemical Characterisation.**Input for external Material Data Systems of PU Foam Convertors.**

Flexible polyurethanes are polymers and defined in Data systems, i.e. IMDS, as product, not as a chemical compound.

For the manufacture of PU foam, a series of raw materials are used. These include, isocyanates, polyols (major proportion), water (small proportion). These ingredients are fully reactive and chemically bonded to the PU matrix of the polymer. The isocyanates are not biologically available from cured foam. In addition, other essential additives of different characteristics are used in small concentrations, some of which could be chemically bonded also to the matrix. Depending on the grade, the PU foam may contain any of the following substances in non-notifiable concentrations: Aliphatic and/or cycloaliphatic amine catalysts Flame-retardants Plasticisers Silicone and/or organic surfactants Stannous octoate catalyst, tin oxide Organic and/or inorganic pigments.

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