

**MSDS****PCS DeltaBoard****1. Identification of the substance/preparation and company**

Substance/preparation

PCS Thermal Construction Board

Manufacturer

Polyfab Coatings & Systems Ltd
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2. Composition/information

Extruded Polystyrene Foam (XPS)

XPS Composition		CAS #	EG #
Polystyrene		9003-53-6	500-008-9
Blowing agent			
R 152 (a): 1,1-Difluorethane		75-37-6	200-866-1
R 134 (a): 1,1,1,2- Tetrafluorethane		811-97-2	212-377-0
Carbon dioxide		00124-38-9	204-696-9
Isobutane		75-28-5	200-857-2
Flame retardant			
Brominated preparation with synergic		1889-67-4	217-568-2
Solvent: Ethanol or DME			
Ethanol		64-17-5	200-578-6
DME		115-10-6	204-065-8

Cement Coating based on special cements and quartz sand.

Cement composition						
EC 1272/2008						
Chemical Name	Index No	CAS No	EC No	REACH Registration number	Conc. (%w/w)	Classification
Triethoxyoctylsilane		2943-75-1	220-941-2		0 - 0.5%	Flam. Liq. 3: H226; Skin Irrit. 2: H315;
Portland Cement		65997-15-1	266-043-4		20 - 30%	Skin Irrit. 2: H315; Skin Sens. 1: H317; Eye Dam. 1: H318; STOT SE 3: H335;
High Alumina Cement		65997-16-2	266-045-5		1 - 10%	
Ethanol	603-002-00-5	64-17-5	200-578-6		0.50%	Flam. Liq. 2: H225;

Glass Fibre Reinforcement Composition

Continuous filament glass fibre (CFGF) products are articles in the meaning of REACH (1907/2006/ER).

CFGF products are made of glass which is given a specific shape (filament) and dimension (filament diameter).

A surface treatment (sizing) is applied to the filaments which are gathered to form a strand. The strand is further processed into a specific product design according to the downstream use of the article. The sizing is a mixture of chemicals, i.e. coupling agent, film former and polymeric resin/emulsion. The sizing content is usually below 1% and in some specific case up to 2.5%. The sizing mixture basically consists of high molecular weight polymers not listed as dangerous substances (EINECS) nor in subsequent additions to the European List of New Commercial Chemical Substances (ELINCS).

For moulded products, based on CFGF a binder is applied in a secondary step to form the pre-form. The binder (polymeric resin) content is usually below 20% of the product weight.

3. Hazards Identification

Cutting the product may create airborne dust. High dust levels may irritate the skin and eyes. There is some risk that fine dust generated during the cutting of the product may contain respirable quartz particles, arising from the cement backing. Long term exposure to respirable quartz dust can cause silicosis - a serious lung disease. Respirable quartz can also cause lung cancer. High dust levels generated from the cement coating during cutting may cause eye irritation.

4. First Aid Measures

Inhalation:	Remove the person to fresh air
Skin Contact	If irritation occurs, wash skin with soap and water.
Eye contact:	Irrigate with plenty of water and obtain medical advice.
Ingestion:	Wash mouth out and drink plenty of water.

Please Note: Should any symptoms persist obtain medical assistance.

5. Fire-fighting Measures

Suitable Extinguishing Media – water, foam, carbon dioxide or dry powder.

Products of combustion from foam – The foam is combustible and will generate gases normally associated with combustion of organic hydrocarbons and should be considered toxic. Combustion products will include carbon dioxide, carbon monoxide and hydrogen bromide. Dense smoke will be generated and suitable breathing apparatus should be worn when fighting fires.

6. Waste management

Large pieces may be placed in plastic bags or waste bins. Dust should be collected using vacuum cleaning or by damping down with water spray prior to brushing up. Minimise exposure to dust. See section 8 for recommended personal protection measures.

(refer to section 8 – exposure/protection and section 13 – disposal considerations).

7. Handling and Storage

Store in original packaging in a dry place. Do not store near sources of excessive heat. Prevent prolonged exposure to sunlight.

Avoid dust generated during secondary processing. The preferred cutting method is to score with a knife or hand saw. If power tools are used properly designed dust extraction should be used and/or respiratory and eye protection worn.

Keep work areas clean. Use water sprays to dampen area prior to brushing or use vacuum cleaning.

8. Exposure controls/personal protection

Occupational exposure limits

Substance	Quartz (respirable Crystalline silica)	Total Inhalable dust
Type of limit	MEL	-
Long term limit (8 hour TWA)	-	-
Short term limit (15 minute TWA)	0.3 mg/m ³	10 mg/m ³
Sampling methods	-	-
	-	- MDHS 14/3
	MDHS 14/3, 37, 38	
	51/2, 76	

High Alumina Cement	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m ³ : 10
	WEL 15 min limit ppm:	WEL 15 min limit mg/m ³ :
	WEL 8-hr limit mg/m ³ total	WEL 15 min limit mg/m ³ total
	inhalable dust:	inhalable dust:
	WEL 8-hr limit mg/m ³ total 4	WEL 15 min limit mg/m ³ total
	respirable dust:	respirable dust:
Portland Cement	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m ³ : -
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m ³ : -
	WEL 8-hr limit mg/m ³ total 10	WEL 15 min limit mg/m ³ total
	inhalable dust:	inhalable dust:
	WEL 8-hr limit mg/m ³ total 4	WEL 15 min limit mg/m ³ total
	respirable dust:	respirable dust:

Notes:

TWA= Time weighted average exposure

MEL= Maximum exposure limit

OES= Occupational exposure standard

OEL= Occupational exposure limit

MDHS= Methods of the determination of hazardous substance

This product used in its intended application and with account taken of the guidance given in this document, it is unlikely that these exposure limits will be exceeded.

¹See UK Health and Safety Executive Chemical Hazard Alert Notice 35

Respiratory protection:

If high dust levels are generated during cutting, a suitable particulate respirator should be worn – either a filtered facepiece mask (FFP2 or FFP3) or a non-disposable mask fitted with a P2 or P3 filter.

Eye Protection: when cutting or processing the use of eye protection to BS EN 166 is advised.

9. Physical and chemical properties

Appearance -	Rigid closed cell plastic foam, coated with grey cement encapsulating fibreglass mesh reinforcement. Supplied as boards.
Odour -	Odourless.
Melting Point -	Above 110°C.
Flash point -	Above 300°C
Solubility -	Insoluble in water. Foam soluble in organic solvents.

10. Stability and reactivity.

Stable under normal conditions of use.

The foam is resistant to many chemicals but not to solvents. Care should be taken in the choice of adhesives to be used with the foam. A cement based flexible tile adhesive should be used. Avoid exposure to excessive heat and flames and prolonged exposure to sunlight.

Decomposition products – fumes from molten material and smoke from fires involving the foam can contain toxic gases such as carbon dioxide, carbon monoxide and hydrogen bromide.

11. Toxicological information

Immediate Hazards

Exposure to dust produced when cutting the product can cause skin, eye and respiratory irritation.

The irritation disappears when the exposure ceases. Mechanical irritation is not considered as a health hazard in the meaning of European directive 67/548/EC on hazardous substances. Continuous filament glass fibers do not require a classification as an irritant (Xi) under the European directive 97/69/EC.

Inhalation may cause coughing, nose and throat irritation and sneezing. High exposures may cause difficult breathing, congestion and chest tightness.

Irritant and toxic gasses can be evolved if the foam is subjected to excessive heat or during a fire.

Delayed Hazards

Fine dust generated during the cutting of the material may contain respirable particles of quartz. Long term exposure to respirable quartz dust can cause silicosis.

Carcinogenicity

Fine dust generated during the cutting of the material may contain respirable particles of quartz. Exposure to respirable quartz dust has been associated with lung cancer – IARC group 1 (IARC monograph 68, 1997)

Reproductive toxicity

No information available on the product.

12. Ecological information

Product is not biodegradable and has no known adverse environmental effects. It is free of HCFC blowing agents and complies with EU Regulation EC/3093/94 on substances which deplete the ozone layer.

13. Disposal considerations.

No special precautions. Not classified as special waste.

14. Transport information

Not classified as hazardous for transport.

15. Regulatory information

Products are not classified as hazardous under
Occupational Exposure limits EH40, (reviewed and reprinted annually)
Control of substances Hazardous to Health (COSHH) regulations 2002

16. Other information

If using adhesive with this product follow the adhesive manufacturer's instructions carefully.
This product should be used as directed by Polyfab Coatings & Systems Ltd.

An on site risk assessment should be carried out before use. This safety data sheet supersedes all previous issues and users are cautioned to ensure the information covered is current. Discard all previous data sheets.

If in any doubt, contact Polyfab Coatings and Systems quoting the date in the top right hand corner of this document. This document was compiled using the current safety information supplied by the distributors of the matrix component materials. It is based on the present state of our knowledge and is intended to describe the products from the point of view of health and safety requirements. It should not be construed as guaranteeing specific properties.