

1 Identification of the substance/preparation and company

Substance/preparation Tile Backing and Thermal Board

Manufacturer GTB Group
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2 Composition/information on ingredients

Composition Polystyrene - with colouring, HFC gaseous blowing agent and 1%wt/wt hexabromocyclodecane flame retardant added during manufacture.

Cement - based on special cements and quartz sand.

Hazardous Constituents					
Component	Portland Cement (cured)	Quartz	Flame Retardant	Blowing Agent	Blowing Agent
EINECS No	266-043-4	238-878-4	221-695-9	212-377-0	200-866-1
CAS No	65997-15-1	14808-60-7	3194-55-60	811-97-2	75-37-6
% by weight classification	22-45%	15-45%	<0.4%	<0.4%	<0.4%

3 Hazards Identification

Hazards

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 during cutting of the cement coating, 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 advise.
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 combustibile 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

Waste	Large pieces may be placed in plastic bags or waste bins. Dust should be collected by vacuum cleaning or 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.
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7 Handling and Storage

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.
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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			Notes
Substance	Quartz (respirable Crystalline silica)	Total Inhalable dust	TWA - Time weighted average exposure MEL - Maximum exposure limit OES - Occupational exposure standard OEL - Occupational exposure limit MDHS - Methods of the determination of hazardous substances.
Type of limit	MEL	-	
Long term limit (8 hour TWA)	0.3 mg/m ³	10 mg/m ³	
Short term limit (15 minute TWA)	-	-	
Sampling methods	MDHS 14/3, 37,38 51/2, 76	MDHS 14/3	

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.

See 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 a fibreglass mesh reinforcement. Supplied as boards. Odourless.
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. 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

	<p>If using adhesive with this product follow the adhesive manufacturer's guidelines carefully. This product should be installed according to the instructions in the Dukkaboard manual.</p> <p>An on-site risk assessment should be carried out before use.</p>
This safety data sheet	<p>Supersedes all previous issues and users are cautioned to ensure it is current. destroy all previous data sheets, and if in any doubt, contact Dukkaboard, quoting the date in the top right hand corner of this document.</p> <p>Does not replace the users own workplace risk assessment.</p> <p>Was compiled using the current safety information supplied by the distributors of the component materials.</p> <p>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.</p>

Dukkaboard Technical Details

Description

Dukkaboard Original Panels are made from Hard Extruded Polystyrene (EPS) Foam which satisfies the requirements for BS EN13164:2008 and achieved a TR200 rating for bonding to cement mortar in accordance with BS EN1607:1997, coating with a flexible cement-based mortar and reinforced with an alkali resistant fibreglass mesh. Dukkaboard XL is made from fibre-reinforced sheets which have been tested for Modulus of Rupture in accordance with the requirements for Category C material to BS EN 12467: 2008

Delivery and site handling

The sheets should be stored flat, under cover, and on a dry, level surface. Stacks of loose boards should not exceed one metre in height.

Properties in relation to fire

The boards will not adversely change the fire resistance of the wall on which they are installed.

When tested to BS 476-6: 1989, samples of Dukkaboard XL gave fire propagation indices (I) of 0.0, 0.1 and 0.0 respectively and sub-indices (i1) of 0.0, 0.1 and 0.0 respectively. When tested to BS 476-7: 1997, Dukkaboard XL achieved a Class 1 result.

When tested to BS EN ISO 1182: 2010 and BS EN 13823: 2010, samples of Dukkaboard Original and XL achieved a reaction to fire classification in accordance with BS EN 13501-1: 2007 of A2-s1, d0.

Therefore, Dukkaboard XL is classified as 'non-combustible' as defined in the various national Building Regulations.

Dukkaboard Technical Details

Test standard for XPS centre	DIN EN 13164	
Load strength (vertical plane)	100kg/m ²	
Compressive strength	DIN EN 1606	0.25N/mm ²
Thermal conductivity	DIN EN 13184	0.03W/m.k
Water absorption	DIN EN 12087	0.3% by vol
Flame resistance	DIN 4102	Class B1 (not readily ignitable)
Coefficient of linear expansion	DIN 53752	0.07mm/m.k
Maximum service temperature (to board)	-50/+75°C	
Shear strength mortar XPS @ 90°	DIN EN 12090	0.20N/mm ²
Tensile strength	DIN EN 1607	0.45N/mm ²
U values	6mm	3.383W/m ² K
	10mm	2.528W/m ² K
	12mm	2.247W/m ² K
	20mm	1.549W/m ² K
	30mm	1.117W/m ² K
	40mm	0.873W/m ² K
	50mm	0.717W/m ² K