



# VENCEL RESIL LIMITED Safety Data Sheet Expanded Polystyrene CONSTRUCTION PRODUCTS

## 1. IDENTIFICATION

### Product Names

Jablite board	Jabvent	Jabcork	Jabfloor	Jablina	Jabperl
Jabwall	Jabdec	Jablok	Jabfill	Jabcore	Jabroll
Jabsqueeze	Jabroof	Jabtherm	Claymaster	Fillmaster	Floatmaster

**Product Type** Expanded Polystyrene (EPS), Euroclass F and E

**Supplier Address** Vencel Resil Limited, Infinity House, Anderson Way, Belvedere, Kent, DA17 6BG

**Contact Number** 020 8320 9100

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Description** Expanded polystyrene containing residual amounts of expanded agent pentane. Euroclass E products also contain a brominated flame retardant.

### Dangerous Components/Constituents

Component Name	CAS Number	Content Range	Hazard
Pentane	109-66-0	<1% wt	Highly flammable

**Other Information** CAS number for polymer component - 900 3-53-6 (polystyrene)

## 3. HAZARDS IDENTIFICATION

### Human Health Hazard

EPS is not known to lead to any skin irritations and is regarded as biologically inert. Residual quantities of pentane and styrene monomer are insignificant. However during hot wire cutting of EPS if ventilation is not adequate the fumes generated can cause irritation to the respiratory tracts and eyes.

Where substantial dust is produced in subsequent processing of EPS (e.g., band sawing or grinding), suitable dust extraction must be provided, to ensure that exposure does not exceed 10 mg/m<sup>3</sup> 8 Hours TWA (Occupational Exposure Limit for total inhalable dust).

### Safety Hazards

EPS is organic and therefore combustible. The following fire precautions are recommended.

- Smoking should be prohibited in the storage and processing areas.
- EPS should be stored away from highly flammable material such as paint or petroleum products.
- Storage and working areas should be kept free from rubbish which may spread fire or ignite spontaneously.
- Fire extinguishers and/or hose reels should be available at an easily recognisable fire point and at all times close at hand when welding or burning adjacent to EPS.
- Polystyrene dust, like other hydrocarbon based polymers in this form, is classified as a Group (a) flammable dust and precautions should be taken as required by Section 31 of the Factories Act 1961.
- If there is an outbreak of fire, the Fire Brigade should be called immediately and advised that EPS is involved. The area should be evacuated by all personnel, except those fighting the fire.

## 4. FIRST AID MEASURES

**First Aid - Inhalation** Only dust produced from machining EPS or small particles are likely to be inhaled. Clear the respiratory tracts. If recovery does not occur obtain medical attention.

**First Aid - Skin** No specific measures.

**First Aid - Eye** Flush EPS particles from the eye with water. If rapid recovery does not occur obtain medical attention.

**First Aid - Ingestion** No specific measures.

**First Aid - Fire** Inhalation of smoke or fumes - Remove from exposure into fresh air. Keep warm and at rest. If there is respiratory distress, give oxygen. If breathing stops or shows signs of failing, apply artificial respiration. Obtain immediate medical attention.  
Skin Contact - Molten Material - Immediately flood affected area and adhering molten polymer with plenty of cold water. **DO NOT** attempt to remove molten or solidified material from the skin. Obtain immediate medical attention.

## 5. FIRE FIGHTING MEASURES

**Specific Hazards** Hazardous combustion products may include carbon monoxide and carbon dioxide. Hydrogen bromide will also be released from retardant grades.

**Extinguishing Media** Foam, water spray or fog. Dry chemical powder or carbon dioxide.

## 6. ACCIDENTAL RELEASE MEASURES

The product is in solid form and releases no harmful substances.

**Personal Protection** No specific measures

**Clean up Methods** Dispose of in accordance with section 13.

## 7. HANDLING AND STORAGE

Store under cover in dry conditions taking into account recommendations in section 3 - Fire Precautions.

Stockpiles should not contain more than 60 cubic metres (about 1 tonne). If a bigger volume needs to be stored it should be divided into two or more stockpiles at least 20m apart.

EPS stockpiles should be sited so that in the event of a fire flowing or dripping molten material will not cause the spread of fire to other combustible materials or to other areas of a building, in particular staircases and corridors.

Storage should be in a level situation at ground level (not on ramps).

Raised thresholds to doorways or bunds should be provided where storage on upper floors is unavoidable (particularly to the edges of floors without upstands and around staircases).

The bund walls should be of fire-resisting and liquid-tight construction.

The capacity of the bund area should be at least 3% of the maximum volume of EPS stored.

Stockpiles should be sited in such a manner that permanently marked access ways can be maintained. Stockpiles should not impair the performance of any sprinkler system.

In warehouses or where large quantities of EPS are stored consideration should be given to the use of sprinklered premises.

On building sites EPS should be stored wherever possible in a fenced compound or building which can be secured, under cover protected from high winds and raised above damp surfaces. Protect from direct sunlight, if exposure is likely to exceed one week. Stack boards flat without bearers.

Storage Temperatures - Ambient.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

No specific protection is required when handling EPS

### Occupational Exposure Standards

The following are the Maximum Exposure Limits (MEL) for the expansion agent and for the hazardous decomposition products:

Component Name	Limit type	Value	Unit	Other Info.
Pentane	TWA 8hr	1770	mg/m <sup>3</sup>	UK Solvents
Pentane	STEL 15min	2210	mg/m <sup>3</sup>	UK Solvents
Styrene Monomer	TWA 8hr	430	mg/m <sup>3</sup>	EH40
Styrene Monomer	STEL 15min	1080	mg/m <sup>3</sup>	EH40
Hydrogen Bromide (Euroclass E Only)	STEL 15min	10	mg/m <sup>3</sup>	EH40

TWA = Time Weighted Average - STEL = Short Term Exposure Limit

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical State

Cellular Foam

### Form

Moulded shapes or sheets

### Colour

White (Claymaster is coloured pink)

### Density

Ranges from 10kg/m<sup>3</sup> to 60kg/m<sup>3</sup>

### Solubility in water

Not soluble

### Solubility in other solvents

Soluble in aromatic, halogenated solvents and ketones

### Softening Point

95-100°C

### Ignition temperature in air

350°C

## 10. STABILITY / REACTIVITY

### Stability

Stable under normal use conditions.

Decomposes above 200°C

### Conditions to avoid

Heat flames and sparks. Strong sunlight for prolonged periods.

### Hazardous Decomposition Products

Styrene Monomer, Hydrogen Bromide products. Carbon Monoxide when burned

## 11. TOXICOLOGICAL INFORMATION

Expanded polystyrene is non toxic and is not irritating to the skin or eyes.

## 12. ECOLOGICAL INFORMATION

The products are not biodegradable, non toxic but small particles may have physical effects on aquatic and terrestrial organisms.

## 13. DISPOSAL CONSIDERATIONS

### Waste Disposal

Recover or recycle if possible. Scrap expanded polystyrene is not classified as "Notifiable Waste" and may be disposed of in suitable land-fill tips or by incineration under approved conditions. Advice on the preferred method should be obtained at all times.

Flame retardant grades contain a halogen complex flame retardant additive encapsulated in the polystyrene which can give rise to the emission of gases such as hydrogen bromide during incineration of waste product.

## 14. TRANSPORT INFORMATION

**UN Number** 2211

## 15. REGULATORY INFORMATION

**EC Label Name** Expanded Polystyrene

**R11** Highly Flammable

**S16** Keep away from sources of ignition - No smoking

## 16. OTHER INFORMATION

### Uses and Restrictions

Insulation of walls roofs and floors in domestic and other buildings.

Cut Pieces for Packaging.

Civil Engineering and Floatation, Protection of Foundations from Clay Movement.

### SDS Listing

Edition 04 Revised - June 2002

Updated September 2003

### SDS Distribution

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.