

Jablite Flat Roof Inverted

LOW WATER ABSORPTION TECHNOLOGY EXPANDED POLYSTYRENE (EPS) TECHNICAL INFORMATION

Jablite Flat Roof Inverted EPS is a technologically advanced lightweight cellular plastic material for inverted flat roof applications. Uniquely identifiable by its Jablite branding, it is an excellent insulating medium which exhibits consistent thermal performance over the range of temperatures normally encountered in buildings.

Composition

Jablite Flat Roof Inverted is manufactured from unique innovative expanded polystyrene (EPS) technology with low water absorption properties. The material comprises expanded beads of polystyrene pre-foamed and fused together in a steam heated mould under pressure.

Standards

Jablite Flat Roof Inverted is produced to the requirements of BS EN 13163 'Thermal insulation products for buildings – Factory made products of expanded polystyrene (EPS) – specification'.

Jablite Limited has been assessed and approved to BS EN ISO 9001 (2000) Quality Management Systems and ISO 14001:2004 Environmental Management System – Requirements.

Typical properties of Jablite FRI		
	GRADE TO BS EN 13163	
	EPS 200	EPS 300
Thermal Properties		
Thermal conductivity (W/mK, at 10 °C)	0.033	0.033
Mechanical Properties		
Nominal density	30kg/m ³	40kg/m ³
Compressive strength at 10% nominal compression (kPa)	200	300
Compressive strength at 1% nominal strain	90 kN/m ²	120kN/m ²
Bending Strength	250	450
Dimensional stability under constant laboratory conditions	±0.5%	
Dimensional stability given 'in-use' conditions	1%	
Moisture Properties		
Water absorption under submersion to EN 12087	≤ 1%	
Water vapour diffusion resistance factor μ to EN 12086	≤ 1%	

Fire Properties

Jablite Flat Roof Inverted is supplied as Reaction to Fire Class E, containing a flame-retardant additive.

Biological Properties

EPS will not sustain mould growth, and offers no nutrient value to insects or vermin.

EPS is non-biodegradable and will therefore be expected to last the lifetime of the building into which it is incorporated.

EPS is non-toxic and inert and can safely be used in areas of planting. There is no occurrence of leachate with EPS.

Thermal Movement

Coefficient of linear expansion: $0.6 \times 10^{-6} \text{ }^{\circ}\text{C}$

The material is sufficiently resilient and flexible that no allowance need be made for thermal expansion.

Working Temperature Range

Jablite FRI can be used within working temperature range $-150 \text{ }^{\circ}\text{C}$ to $+80 \text{ }^{\circ}\text{C}$

Compatibility with other materials

EPS is compatible with all common building materials such as bitumen, cement, polythene etc. However, it should be protected from contact with hydrocarbons and strong solvents by a suitable membrane.

EPS should not be permitted to come into contact with PVC membranes since this can lead to plasticiser migration resulting in embrittlement of the membrane. A suitable separating layer such as fibreglass fleece or non-woven polyester sheet should be provided between the two materials.

Health and Safety

Jablite FRI is non-toxic and not irritating to the eyes or skin. No medical treatment or action is required as a result of accidental ingestion.

No special precautions are required during handling or cutting when carried out in well ventilated areas.

Environment

Jablite FRI is 98% air.

EPS has an ODP of Zero and GWP <5 .

The manufacturing process of EPS utilises steam. Production of Jablite EPS has never required the use of 'blowing agents' such as CFC's, HCFC's, HFC's or HFA's which are stated as being detrimental to the environment.

The EPS Life Cycle – Environmental Assessment

Expanded polystyrene has been awarded an A+ rating by the BRE's Green Guide to Specification 2008.

Recyclable

Jablite EPS is fully recyclable and we at Jablite Limited operate an environmental programme recycling all in-house manufacturing waste as well as recycling packaging and other waste EPS from outside sources.

Accessories

Jablite Filter Membrane

Vapour permeable high performance spun-bonded polypropylene flexible membrane providing zero water penetration flow rates as tested to Annex D of the European Technical Approval Guideline for Inverted Insulation Kits.

Roll size 3m x 100m

Jablite Flat Roof Inverted Upstand Board

Grade 300 Jablite Flat Roof Inverted insulation, pre-finished with an 8mm laminate designed for vertical detailing.

Board size: 1200mm x 1200mm in three standard thicknesses.

Thickness	Thermal Resistance m ² K/W
58mm	1.50
83mm	2.30
108mm	3.05

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