

PRODUCT DATA SHEET

Cem Topped Board

SIKA LIQUID PLASTICS CEM-TOPPED BOARD IS TO BE USED WITHIN THE INVERTED ROOF SYSTEM

PRODUCT DESCRIPTION

Sika Liquid Plastics' Cem-topped Board is a high performance rigid extruded polystyrene insulation with 10mm thick polymer fibre reinforced hydraulic cement.

Liquid Plastics' Cem-topped Board is manufactured without the use of CFC's/HCFC's and has zero Ozone Depletion Potential (ODP).

USES

Cem Topped Board is for use on upstands in the Sika Liquid Plastics' Inverted Roof System.

CHARACTERISTICS / ADVANTAGES

- Cementitious topped high performance rigid extruded polystyrene insulation panels
- Easy to handle and install panels - tongue and grooved on their long edges
- Ideal for new build and refurbishment
- Non-deleterious material
- CFC/HCFC-free with zero Ozone Depletion Potential (ODP)

ENVIRONMENTAL INFORMATION

Sika Liquid Plastics' Cem-topped Board is chemically inert and safe to use (please refer to the relevant safety data sheet before use)

APPROVALS / STANDARDS

- Fire behaviour according BS476 Part 3 FAA rating
- Water Vapour Resistance BS EN 12086: 1997

PRODUCT INFORMATION

Chemical Base	Rigid polystyrene insulation board
Packaging	Product is supplied in labelled packs shrink wrapped in polythene.
Appearance / Colour	The boards have a pre-finished, durable, smooth upper surface and no further treatment is necessary.
Shelf Life	Product does not expire if correctly stored
Storage Conditions	The packaging for Sika Liquid Plastics' Cem-topped Board should not be considered adequate for long term outside protection. Ideally boards should be stored inside a building. Sika Liquid Plastics' Cem-topped Boards should be stored flat in a ventilated areas and protected generally from accidental damage, contact with volatile solvents, flames and extended exposure to UV and sunlight. If it is stored outside for more than a few weeks, it must be covered with a pale pigmented plastic sheet.

Dimensions	Nominal Dimension	Availability			
	Length (m)	1.2			
	Width (m)	0.6			
	Topping Thickness (mm)	10			
	Insulation Thickness (mm)	50			
	Edge Profile	Tongue & grooved on long edges			
Thickness	<p>The thermal resistance (R value) varies with the thickness and is calculated by dividing the thickness of the individual component (expressed in metres) by its thermal conductivity.</p> <p>Additionally, an allowance of the calculated resistance is made to compensate for saturated roofs during long periods of rain in accordance with BS EN ISO 6946: 1997 and BRE report (BR443 2006). Conventions for U-value calculations.</p>				
	<table border="1"> <thead> <tr> <th>Product Thickness* (mm)</th> <th>Thermal Resistance (m².K/W)</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>1.73</td> </tr> </tbody> </table>	Product Thickness* (mm)	Thermal Resistance (m ² .K/W)	60	1.73
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Effective Thickness	<p>Thermal Conductivity</p> <p>The thermal conductivity of the cement topping of Liquid Plastics' Cem-topped Board is 1.4 W/m.K.</p>				
	<p>The thermal conductivity of the extruded polystyrene core of Liquid Plastics' Cem-topped Board is 0.029 W/m.K</p>				
	<p>Thermal Resistance</p> <p>The thermal resistance (R value) varies with the thickness and is calculated by dividing the thickness of the individual component (expressed in metres) by its thermal conductivity.</p>				
	<p>Additionally, an allowance of the calculated resistance is made to compensate for saturated roofs during long periods of rain in accordance with BS EN ISO 6946: 1997 and BRE report (BR443 2006). Conventions for U-value calculations.</p>				
Coefficient of Thermal Expansion	<p>The linear thermal expansion coefficient of the rigid extruded polystyrene insulation element in Liquid Plastics' Cem-topped Board is 0.07mm/m.K when tested to BS 4379-3: 1988 (1996) (Methods of test for rigid cellular).</p>				
Reaction to Fire	<p>When subjected to British Standard fire tests using Sika Liquid Plastics' Cem-topped Board, the results are dependent on the roofing system adopted, however Decothane systems used as the waterproofing layer of the complete system achieves a FAA rating for BS476 Part 3. Decothane is also successfully tested to DD ENV 1187 Parts 1, 2 and 3 and FM (Factory Mutual).</p>				
Water Permeability	<p>The rigid polystyrene insulation element of the Sika Liquid Plastics' Cem-topped Board is not sensitive to moisture of any kind. Its surface is water repellent and there is no capillary suction. The material is also not hygroscopic. Water absorption is <0.5% when tested to BS EN 12087: 1997 (Thermal insulating products for building applications. Determination of long-term water absorption by immersion)</p>				
Service Temperature	<p>Sika Liquid Plastics' Cem-topped Board should not be brought into direct contact with high temperature heat sources. The maximum service temperature of Sika Liquid Plastics' Cem-topped Board is 75°C.</p>				
Design Considerations	<p>The design restraint of the Liquid Plastics' Cem-topped Board when interlocked into an array is:</p> <ul style="list-style-type: none"> ▪ Not interlocked into array Self weight ▪ Stretcher bond array Self weight x 2 <p>The normal and recommended laying pattern for Liquid Plastics' Cem-topped Board is the brick or stretcher bond pattern.</p>				



This method offers additional restraint values of two times self weight where the panels are locked into the array. Panels with a free edge and not locked into the array should be considered as self weight only. The Sika Liquid Plastics' Cem-topped Board should be laid so that the tongue and grooved edges fully interlock. Where panels have to be cut the continuity of interlock should be maintained by the use of cross clipping.

Edge Detail Additional Restraint

Where the design requires additional ballast or mechanical restraint over and above the self weight values offered by the various methods of laying as described above, this is normally achieved by the use of 50mm concrete paving slabs loose laid over the panels at centres as appropriate to the design values.

Cutting

Use an angle grinder saw to cut through the cement topping. Cutting of the extruded polystyrene insulation should be carried out using a fine toothed saw, or by scoring with a sharp knife and snapping the board over a straight edge and cutting the facing on the other side. Ensure accurate trimming to achieve close butting joints and continuity of insulation.

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

serves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

ECOLOGY, HEALTH AND SAFETY

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika re-

TECHNICAL ENQUIRIES

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