

Decotherm[®] Optim-R[™]

High Performance Vacuum Insulated Panel

Product Description

Decotherm[®] Optim-R[™] is a next generation insulation solution that comprises of rigid vacuum insulated panels (VIP) with a micro-porous core which is evacuated, encased and sealed in a thin gas tight envelope, giving outstanding thermal conductivity, the the thinnest possible solution.

Decotherm[®] Optim-R[™] is an insulation system consisting on a rubber crumb mat (R3), a vacuum insulated panel (Optim-R[™] VIP Panel) and a rigid thermoset insulation (Decotherm[®]).

Uses

- Used when there is minimal upstand height available
- Used when a very low U-value is required

Characteristics / Advantages

- Insulation performance is upto five times better than other insulants
- Problem solving product
- Low U-value with the thinnest board possible
- Thermal conductivity 0.007 W/m.K

Product Data

Test

Approvals / Standards

- Quality management system EN ISO 9001/14001
- OHSAS 18001
- BS476 Part 3, CEN-TS 1187-4 and EN13501-5(4) subject to construction

Roofing



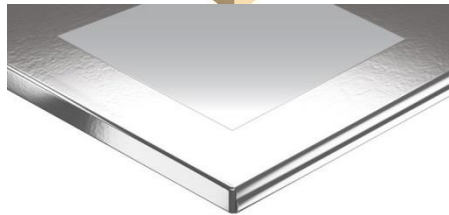
Form

Appearance

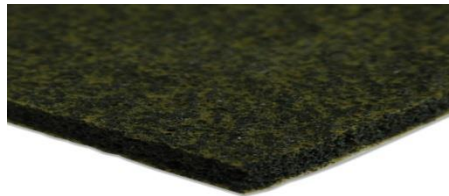
Decotherm® Optim-R™ System Consists of:



Decotherm
Light beige faced boards



Decotherm Optim-R
Silver foil wrapped panel



Decotherm R3 Rubber protection mat
Black rubber mat

Board size

1200x600 width x length
1200x400 width x length
1200x300 width x length
600x600 width x length
600x400 width x length
400x300 width x length
300x300 width x length

Thickness

Decotherm® R3 Rubber protection mat
3mm

Decotherm® Optim-R™ panel
20mm, 25mm, 30mm, 40mm, 50mm, 60mm**, 70mm** and 80mm**
**May be supplied as double layer

Decotherm®
25mm

Packaging

Decotherm® Optim-R™ is supplied in labelled boxes.

Thermal Conductivity

Subject to build up

Storage

Storage Conditions

The packaging of Decotherm should not be considered adequate for long term outside protection. Ideally, boards should be stored inside a building. If however, outside storage cannot be avoided the boards should be stacked clear of the ground and covered with a polythene sheet or weatherproof tarpaulin. Boards that have been allowed to get wet must not be used.

System Information

System Structure

Built-Up Roofing System Board over Existing Waterproofing

Substrate	Prepare substrate in accordance with the Decostik® SP technical datasheet
Insulation	Decotherm® Optim-R™ System Decotherm® R3 Rubber protection mat bonded to the substrate with Decostik® SP. Decotherm® Optim-R™ panel is bonded to the rubber protection mat with Decostik® SP. Decotherm® is bonded to the Decotherm® Optim-R™ panel with Decostik® SP. Please see the Decostik® SP. technical datasheet for further information
Carrier Membrane	Carrier Membrane SA with Primer 600 please see the technical datasheet for further information
Waterproofing System	Specified Sika Liquid Plastics liquid applied membrane

Built-Up Roofing System for Strip Back or New Build (Adhered System)

Substrate	Prepare substrate in accordance with the Primer 600 technical datasheet
Vapour Control Layer	S-Vap 5000E SA please see the technical datasheet for further information
Insulation	<p>Decotherm® Optim-R™ System</p> <p>Decotherm® R3 Rubber protection mat bonded to S-Vap 5000E SA with Decostik® SP.</p> <p>Decotherm® Optim-R™ panel is bonded to the rubber protection mat with Decostik® SP.</p> <p>Decotherm® is bonded to the Decotherm® Optim-R™ panel with Decostik® SP.</p> <p>Please see the Decostik® SP. technical datasheet for further information</p>
Carrier Membrane	Carrier Membrane SA with Primer 600 please see the technical datasheet for further information
Waterproofing System	Specified Sika Liquid Plastics liquid applied membrane

Application Method:

The Decotherm® Optim-R™ panel can't be cut to fit or penetrated as it would affect the thermal performance therefore a bespoke layout must be designed prior to application. Please refer to this drawing when laying out the insulation panels. Contact Technical Services for more information.

The vacuum insulated panel in the Decotherm® Optim-R™ system **must not** be heavy handled, cut, sawn or drilled. The Decotherm® R3 Rubber protection mat and other substrate must offer sufficient strength and adhesion to resist the forces generated by wind suction. The substrate must be solid, clean, free of oil and grease and dry. Standing water must be dried off. Loose aggregate and protrusions must be removed.

Use Primer 600 to prepare the substrate to bond S-Vap 5000E SA vapour control layer. Each layer of Decotherm® Optim-R™ is then bonded in turn using Decostik® SP adhesive.

Bonding:

Remove the lid from the tin and pull out the pouring spout. Apply 6 continuous beads of adhesive per metre with a liquid bead width of 20mm (approx 500 g/m²). Do not apply more adhesive than can be covered in 5 minutes. The layers of Decotherm® Optim-R™ must be laid and pressed into the adhesive beads before skin formation. It is recommended that periodic checks are carried out to check that the adhesive ridges have been squeezed flat. Do this by lifting the insulation material at the leading edge.

Notes on Application / Limits

Installation works to be carried out only by specialist roofing contractors. Temperature limits will depend on waterproofing membrane installation limits. Use of some ancillary products, e.g. adhesives is limited to temperatures above +5 °C.

Please observe information given by Product Data Sheets.



Value Base	All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.
Ecology, Health and Safety Information	The product does not fall within the EU-regulation of hazardous goods. As a result, a material safety data sheet following EU-Guideline 91/155 EWG is not needed to bring the product to the market, transport or use it. The product does not damage the environment when used as specified.
Protective Measures	Regulatory Safety requirements must be observed
Disposal	The material is recyclable. Any disposal must be in accordance with regulatory guidelines.
Transportation Class	The product is not classified as hazardous goods for transport.

General Information

Disclaimer	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 reserves 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.
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Specification Assistance	NBS is the industry standard specification system, which allows architects, specifiers and engineers to insert clauses into specifications by manufacturer and product, making the process quicker and more efficient. We are members of NBS Plus and therefore detailed up-to-date product information is readily available to create accurate specifications.
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Contact Details	For further information please contact: Sika Liquid Plastics Sika House Miller Street Preston PR1 1EA Enquiry Line: 01772 259781 Fax: +44 (0)1772 255670 e-mail: liquidplastics@uk.sika.com
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