

## TECHNICAL DATA SHEET

### Lambdatherm Grey (70) Polystyrene External Wall Insulation Board



**Product Code:** GPSE\*\*\* - Square edge boards  
 GPRS\*\*\* - TS Rail Frame boards



**SPS ENVIROWALL PROMOTES THE RE-USE –RECYCLING AND RESPONSIBLE DISPOSING OF ALL OF ITS PRODUCT RANGE, VIA THE ENVIRONMENTAL LOCAL AND DIRECT FROM SITE RECYCLING SCHEMES IN OPERATION. PLEASE REQUEST DETAILS FROM SPS ENVIROWALL LIMITED.**

#### Characteristics

Lambdatherm 70 Grey EPS is a high quality low cost thermal insulation board comprising of polystyrene that traps air to provide an efficient insulating material. It has an improved Lambda value of 0.032 a higher thermal performance than the standard White EPS board Ref.VPSE...

#### Technical Data

Length	L(3)
Width	W(3)
Thickness	T(2)
Squareness	S(5)
Flatness	P(10)
Compressive Strength @ 10% Deformation	CS(10)70 (70 kPa)
Dimensional stability @ 23°C / 50% RH	DS(N)2
Dimensional stability @ 70°C / 90% RH	DS(70,90)1
Long term water absorption by immersion –Total	WL(T)4
Long term water absorption by immersion –Partial	0.31 KG/M <sup>2</sup>
Tensile Strength –Dry Conditioned	TR200
Tensile Strength-Wet Conditioned (28 days)	TR200
Shear Strength	0.18 N/mm <sup>2</sup>
Water Vapour diffusion resistance factor	20 TO 40 µ Tabulated Value
Water vapour permeability	0.015 to 0.030 mg(Pa.h.m)
Bending Strength	BS115 (115kPa)
Thermal Conductivity (Lambda value)	0.032 W/mK
Dangerous substances	None (No test method available)
Reaction to Fire	Euroclass E
Nominal Density	15 kg/m <sup>3</sup>

#### Substrate

Substrates must be suitable, stable, clean and dry. Loose render parts can be removed or smoothed if necessary.

#### Application

Lambdatherm 70 Grey EPS boards used by SPS Envirowall are manufactured specifically for external wall insulation applications, to densities to suit the system it is applied to. It is light and easy to handle. It is easily cut to size and requires no specialist trades to fit. It can be rasped to provide a flat finish across an elevation or in

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creating a curved façade. The boards can be either adhered and mechanically fixed or applied within a TS Rail framework system fixed to the substrate (dependant on application requirements-please consult SPS Envirowall for technical advice) then overlaid with a basecoat, reinforcement mesh and render system to the system suppliers specification. The boards offer a solid and robust supporting substrate for the render systems, fire breaks may be required dependant on building height and vertical compartmentalising requirements, seek advice from SPS Envirowall or project specifier. Apply the insulating boards firmly against the wall and adjust the position slightly to ensure they are in contact with the adjacent board leaving no gaps. Supply and insert through the insulation slabs and into the substrate mechanical fixings ensuring minimum embedment (subject to pull out tests) in the sequence and pattern as advised by SPS Envirowall Limited. Outer face of all slabs to be flat and in-plane. Additional fixings at 300mm centres to be fixed either side of building corners and on all wall apertures. The distance of the fixings from the face of the insulation at corners of the building and wall apertures should include the thickness of the insulation board plus 75mm from the corner of the existing substrate.

The fixing must be driven into the substrate until the head sits flush with the surface of the insulation.

L – Shaped insulation boards to be installed at the corners of all window/door or any type of aperture on the façade.

Boards to be fixed using stagger bond pattern with alternate interlocking up all corners of building and apertures. No insulation boards measuring less than 200mm in height or width should be used wherever possible. In certain circumstances this may not be possible, i.e. between window heads and soffits. In these cases it is acceptable to use narrower strips of insulation.

The TS Rail system boards are fitted within a rail framework but may require a mechanical fixing through the centre of each board depending on project height and location, for advice contact SPS Envirowall Limited. Fire breaks using Mineral Wool are usually required due to the project types this system is specified for. These are horizontally located at floor levels and vertical locations to create compartmentalisation of the building envelope.

#### Storage

Store in a clean, dry environment, above ground level and protected

#### Certificates/approvals

#### Identification

Dimensions: TS Rail System supplied in pre routed boards 500 x 500mm. 50mm- 200mm thickness' as standard. Square edged supplied 1200 x 600mm. Thicknesses 20mm-250mm as standard.

#### Special Information

##### Disposal

**ENVIRONMENTAL RECYCLING SCHEMES ARE AVAILABLE. PLEASE CONTACT SPS ENVIROWALL LIMITED FOR DETAILS.**

Check local landfill requirements for correct disposal. See the SPS Envirowall Limited Health & Safety data sheet on this product for information regarding the safe disposal of this product.

The information supplied in this Technical Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.

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Our application recommendations, whether verbal, written or as graphics, are given to the best of our knowledge and the state of the art. Information about values, quantities etc. are based on approximate figures. The recommendations do not constitute a legally binding warranty of quality. In particular no liability claims may be based on these recommendations; the provisions of the product liability law remain unaffected.

The recommendations do not release the purchaser from his own duty to test the product or from his own responsibility, and in particular they do not release the purchaser from compliance with the relevant technical guidelines, regulations, DIN and laws. Publication of a revised version of this technical information sheet due to technical progress invalidates all older versions of this document