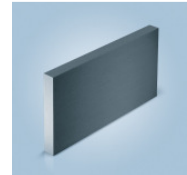


## Technical Data Sheet

# Sto-Insulaton Board K70 Lambdatherm

An Insulation board made of grey expanded polystyrene foam with FRA additive in accordance with EN 13163



### Characteristics

- |                    |   |
|--------------------|---|
| <b>Application</b> | <ul style="list-style-type: none"> <li>• For exterior use</li> <li>• As insulation board in external wall insulation systems</li> <li>• Fixing method, bonded or bonded/dowelled</li> <li>• For use In the StoTherm Classic and StoTherm Vario systems as well as Stomix StxTherm Eco and Robust systems</li> <li>• Not suitable for below ground / dpc insulation</li> </ul> |
|--------------------|---|

- |                   |  |
|-------------------|--|
| <b>Properties</b> | <ul style="list-style-type: none"> <li>• Fire classification E in accordance with EN 13501-1</li> <li>• Free of CFC and HCFC</li> <li>• Shrinkage free</li> <li>• Enhanced thermal properties</li> </ul> |
|-------------------|--|

### Format

- |                              |  |
|------------------------------|--|
| <b>Board sizes available</b> | <ul style="list-style-type: none"> <li>• 100 x 50 cm grey board with Square edges or Tongue and Groove</li> <li>• Bespoke shapes, curved profiles possible, refer to Sto Ltd</li> <li>• For board thicknesses, refer to Sto Ltd</li> </ul> |
|------------------------------|--|

### Application

<b>Application temperature</b>	Lowest application temperature: 1°C or as required by adhesive
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<b>Preparation</b>	Prepare substrate with reference to the requirements of the adhesive/ mechanical fixing.
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For mechanical systems the substrate must be suitable to take the mechanical fixings used. Pull out tests may be required. Refer to Sto Technical services.

Any existing coatings must be sound and allow any load transfer through the fixing to the substrate. If a bonded system is to be used then the surface will need to be load bearing and compatible with the adhesive proposed.

Major unevenness must be equalized using the mechanically fixed system or leveled out with a render in accordance with DIN EN998-1.

### Application

#### Adhesive application

Cement-based adhesive-only scenarios

For application of cement based adhesive, apply in strip around the board edge, approx. 5 cm wide and a minimum of 3cm high. Apply 6 No. adhesive dots in the board centre. The contact area for bonding must be at least 40% of the board size

Alternatively, the full bed adhesive method may be used, particularly if the substrate is even. Apply the adhesive over the entire surface of the board and finish with a 15mm notched trowel. A 5cm continuous strip of adhesive should be left around the perimeter of the board.

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### Dowel-based systems with Cement Based Adhesive

For application of cement based adhesive, apply in strip around the board edge, approx. 5 cm wide and a minimum of 3cm high. Apply 2 No. adhesive dots in the board centre. The contact area for bonding must be at least 20% of the board size. Set dowels in the prescribed pattern after the adhesive has hardened.

### Sto Turbofix

When using StoTurbofix refer to user instructions. Apply in a bead around the board edge with an enclosed M or W. The contact area for bonding must be at least 40% of the board size.

Apply insulation boards to the pre-treated substrate in stretcher bond pattern, from bottom to top, correctly aligned, absolutely level, and tightly butt-jointed. For cement adhesives it is important that no adhesive is applied on sides of the board (edges) as this will cause cold bridging. A dovetail of boards should be created at internal and external corners. When using mechanical systems or supplementary dowels the pull out resistance of all fixings must be sufficient to resist the loading imposed on the building. Contact Sto technical services if you have questions regarding the fixings required.

### Openings in facades

To avoid the continuation of board joints vertically or horizontally from the corners of windows/doors, insulation boards shall be fitted to eliminate such joints.

### Board Joints

Any open joints between boards shall be filled with strips of insulation or with PU filler foam (for joint gaps up to 5mm).

### Structural expansion joints

Existing expansion joints in the building shall be continued through the full external wall insulation system unless specified otherwise (some deflection head movement can be accommodated by Sto mechanically fixed systems – refer to Sto technical for further detail)

Once installed and the adhesive has fully set, all EPS boards shall be rasped to achieve an even surface for the subsequent reinforcement coating and also to remove any surface damage from UV radiation (Sunlight)

### Indications, recommendations, special information, miscellaneous

Application for EWI systems in accordance with DIN 4108-10  
Of limited combustibility to DIN 4102

### Consumption

#### Type of Application

Square Edged (SE)  
Tongue and Groove (T&G)

#### Consumption approx

1,00 m<sup>2</sup>/m<sup>2</sup>  
1,00 m<sup>2</sup>/m<sup>2</sup>

### Delivery

#### Colour shade

Grey

### Packaging

Bundle/Pack or pallet, refer to price list

### Storage

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### Storage conditions

Store in frost-free conditions (> +5°C). Store pallets away from strong sunlight.

It is good practice to store EPS in dry conditions, protected from direct sunlight and away from areas where it may become damaged. The fixed EPS boards must be protected from moisture and be coated with the reinforcement coating within a short period. Do not use any aromatic solvents on EPS boards.

### Certificates / approvals

BBA Cert 3132/PS1	StoTherm Classic External Wall Insulation Systems
BBA Cert 3132/PS2	StoTherm Vario External Wall Insulation Systems
BBA Cert 13/4970	Stomix StxTherm Eco External Thermal Insulation System
BBA Cert 13/4993	Stomix StxTherm Robust External Wall Insulation Systems

### Identification

**Product group** Insulation Board, expanded polystyrene

### Special information

The information or data serves to ensure the product's intended purpose or its suitability for use and is based on our findings and experience. Nevertheless, users are responsible for establishing the suitability of the product for its intended use.

Applications other than those explicitly mentioned in this technical data sheet are only permissible after prior consultation with Sto. Where no approval is given, such applications are at the risk of the user. This applies in particular when the product is used in combination with other products.

When a new technical data sheet is published, all previous technical data sheets are no longer valid.

## Technical Data Sheet

# Sto-Insulation Board K 70 Grey EPS

### Insulation board specification

Property	Conditions	Unit	Sto Insulation Board K70
<b>Water</b> (Tabulated Values)			
Water vapour diffusion resistance		$\mu$ 1	20-40
Water vapour permeability		$\delta$ mg/(pa.h.m)	0,018 to 0,036
<b>Heat</b>			
Thermal conductivity (K) value	10 degrees C mean	W/mk Max	0.032
<b>Strength</b>			
Compressive strength	At 10% compression	kPa (min)	70
Cross breaking strength		kPa (min)	115
Safe working load	At 1% compression	kPa (min)	21

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