

StoTherm Classic

The System

StoTherm Classic is a tough, highly durable external wall insulation system offering proven performance in extreme climates around the globe with over 150 million m² installed since 1963, available with rendered finishes in a vast colour choice or with brick slip, tiled or stone style finishes for virtually unlimited design freedom.

The Benefits

- Insulation thicknesses of up to 200mm mean that very low U-values can be easily achieved.
- No additional expansion joints required.
- Faster, more efficient single leaf construction can be used creating additional internal space with improved thermal performance.
- Class 'O' fire rating and lightweight materials make this system suitable for tall constructions.
- Unique track system suitable for non load-bearing, friable substrates also enables uneven and out of line substrates to be corrected.
- Maintenance free finishes are through-coloured and completely weather-proof, yet remain vapour permeable.
- Unique QS (Quick Set) materials offer frost resistance and wash-off protection from +1°C, helping projects complete on time.



1: The Royal Opera House, London
Architect: BDP Dixon Jones



2: Offices, Konstanz, Germany
Architect: Fischer Kiessling & Partners

3: Skywood House, Denham, England
Architect: Graham Phillips, Foster & Partners

4: Mercedes Benz Building, USA
Architect: Gresham, Smith and Partners



3



4



Sto now offer* a unique insurance backed warranty covering:

- 10 years against cracking
- 10 years against latent defects in the render including adhesion, weather-proofing and fade resistance.
- Extended period available

StoTherm Classic:

Complete peace of mind – guaranteed.

**Additional charge.*

System Description

1. Fixing System

Either (1a) adhesive fix (with dowels if specified) or (1b) mechanically fixed track system.

2. Insulation Boards

EPS insulation 15kg/m³, CFC and HCFC free with fire retardant additive (FRA).
Thicknesses from 20mm to 200mm

3. Reinforcing Render

StoArmat Classic cement free, water based, fibre reinforced, highly flexible render *Application thickness: Max. 3mm. Drying time: 24 – 48 hours**

4. Reinforcing Mesh

Specially developed **Sto Glass Fibre Mesh** is embedded in the StoArmat Classic whilst still wet to provide additional crack prevention.

Performance: (StoArmat Classic / Sto Glass Fibre Mesh combined): Adhesion to concrete: 0.93N/mm². Tensile strength: 2.2% expansion at 2200N/50mm

5. Decorative Finish Renders

Sto through coloured, weather proof, low maintenance decorative renders are available in white and a range of 800 colours.

Use either:

Stolit acrylic resin render

Performance: Water absorption; w24 0.04kg/m².h0.5. Vapour permeability; sd0.24m.

or **StoSilco** silicone resin render

Performance : Water absorption; w24 0.116kg/m².h0.5. Vapour permeability; sd0.18m.

Drying time: May be over-coated after ca. 24 – 72 hours*

Thicknesses: As per Sto Render Guidelines.

Use QS grades below +5°C

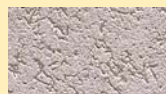
Brick slips, tiles and other finishes are also available - see leaflet on Sto Decorative Renders for more details.

For a detailed specification, please contact Sto Ltd.

Stolit /StoSilco
'Stippled' finish



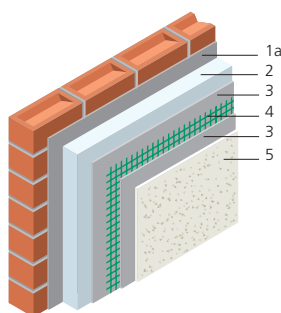
Stolit /StoSilco
'Rilled' finish



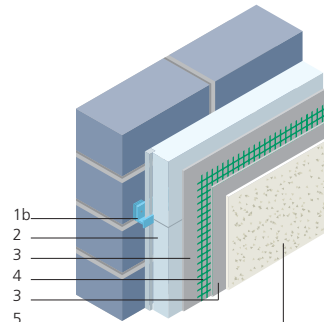
Stolit MP/StoSilco
MP finish



Adhesively fixed System



Mechanically fixed System



1a: Adhesive fix 1b: Mechanically fixed track system
2: Sto-EPS insulation board 3: StoArmat Classic reinforcing render
4: Sto Glass Fibre Mesh 5: Sto decorative finish

Surface Preparation

Adhesively Fixed System

Existing substrates should be clean, dry and free of loose coatings, dirt etc. Make good as necessary.

Preparation Treatments (if required)

StoPrim Fungal – fungicidal wash should be used where algae or fungus are present. Do not wash off after application.

StoPrim Micro – deeply penetrating, siloxane based primer, which forms a water repellent layer in the substrate. Reduces the absorbency of porous substrates and helps consolidate the surface.

StoPrep Contact – acrylic based adhesion intermediary for siliconised bricks, ceramic tiles or other low absorbency backgrounds.

N.B. If extensive substrate preparation is required, it may be more cost effective to use the mechanically fixed system.

Mechanically Fixed System

No substrate preparation necessary.

If in doubt, please consult Sto for advice on the use of primers. Other primers are available for substrates requiring special treatment.

Technical Guidelines

Application

StoTherm Systems use specialist materials applied by trained, registered applicators.

Details

Detail drawings are available for most standard details. Please contact us for further information.

Stop / Expansion Joint / Corner Beads

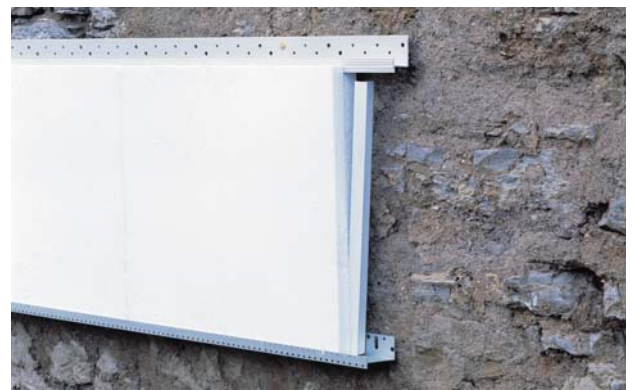
Use Sto Proprietary Beads.

Winter Working

Selected Sto finishes are available in QS (quick set) grades which are unique to Sto. These special materials can be used down to +1°C / 95% r.h. and are wash off and frost resistant after 9 hours. This performance is unequalled for water based materials. No solvents are used, protecting the environment.

*Drying Times

Drying times are based on 20°C/65%r.h. Drying will be prolonged by cooler temperatures or higher humidity.



The mechanically fixed system, provides reliable fixing to friable, uneven substrates.



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