

## Onexit Thermic – Thermal Insulating Render

Onexit Thermic is a factory produced Ultra Lightweight Thermal Insulating Render specially designed for hand and machine application produced to EN 998-1 2003. It is manufactured from a controlled blend of selected lightweight aggregates, white or grey cement, polymers, fibres and other components to give a high quality thermal insulating rendering product which is suitable for insulating walls, facades under decks and floors. The unique properties of this render makes it suitable for application on low, medium and high density substrates and can be used as a replacement for traditional thermal insulation boards.

- Highly Insulating
- 60% Faster Than Installing Traditional Insulation Boards
- High Yield
- Eliminates Thermal Bridges
- CE Marked
- EN 998-1:2003

### Field Of Application

A thermal insulating render for facades, walls, under decks and floors constructed out of low, medium and high density blockwork and any concrete. The product's special composition allows the product to breathe and also permits constant hygrometric exchange between the substrate and the environment.

### Substrate

Substrates to be rendered should be examined for contamination, deterioration, surface roughness, suction and strength. Dust and contamination such as residues of concrete release agents, gypsum plaster, paint, other coatings, organic growth, salts and efflorescence should be removed prior to rendering. Salts and efflorescence should be removed by dry brushing (non-metallic bristles). Other special precautions may need to be taken if this removal is not achievable. The line and flatness of the substrate should also be assessed to determine if the render can be applied to a uniform thickness or if dubbing out is required.

The substrate should be reasonably dry and free of frost, with a temperature of +5 °C or above at the time of rendering. It is important for the wall not to be too wet at the time of rendering. Walls that have recently been exposed to heavy rain should be allowed to dry out sufficiently before rendering is attempted.

### Preparation

Onexit Thermic should only be applied to mature stable surfaces. A minimum of one month should be allowed following completion of the wall construction before application of the render commences. In case of insitu concrete, a period of 45 days should be allowed in order to allow final shrinkage. In slow drying situations, a longer interval should be allowed.

All substrates must be clean, sound and dust free, as the render relies on a combination of suction and surface texture to achieve bond. The recommendations set out in EN 13914 - 1:2005 and BS 5262:1991 should be followed. It is essential that all steps are taken to ensure that a satisfactory bond is achieved between the render and the substrate.

### Working Instructions

First determine the thickness of Onexit Thermic to be applied, don't forget to take the thickness of the final top coat i.e. Onexit Thermicolor (> 12mm) into consideration. A thin layer of the product may be applied first, pressing it well into the surface with a float trowel. Before this layer dries, extend the mixture in a uniform way to a thickness of maximum of 40 mm. Continue to apply until you have a smooth flat surface at the desired thickness. Once product has hardened, (24 hours, depending on the substrate and environmental conditions) further thickness of material can be applied (again up to max. 40mm). When the product is sufficiently hardened (48 hours, depending on the substrate and environmental conditions) Onexit Thermic can be finished using the specially designed Onexit Thermicolor as directed.

### Mixing

Mix Onexit Thermic with 85-95% (13.6 - 15.2 litres per bag) of clean water with a heavy duty drill and paddle for 1-2 minutes or with a suitable continuous mixer/pump. Excess water will cause a loss of strength.

### Application

During application the temperature must be between 5-30°C. Always maintain a wet edge, when working in sections. In sunny conditions work should commence on the shady side of the building and be continued following the sun, to prevent the rendering drying out too rapidly.

**Practical Advice**

Structural joints in the substrate need to be followed through. Vertical joints should be included at 6m intervals or 20m<sup>2</sup> areas. When product is applied in more than one layer i.e. > 40mm, the first layer requires a key for the second layer to adhere.

**Storage**

12 months under dry conditions.

**Colour**

White or standard grey.

**Safety**

Caution. This product contains cement, which becomes alkaline when wet and may cause skin irritation. Use goggles, gloves and protecting cream. Avoid prolonged contact with skin. Avoid inhaling the dust. Wash affected area with warm water and soap. Wash eyes thoroughly and consult a physician. Do not ingest. See Health and Safety Data Sheet for further information.

**Technical Information**

Dry Bulk Density	300 - 400 kg/m <sup>3</sup>
Compressive Strength	CS I
Flexural Strength	0.66 +/- 0.5 N/mm <sup>2</sup>
Adhesion	>0.2 N/mm <sup>2</sup>
Thermal Conductivity	< 0.050 W/m <sup>2</sup> °C
Yield	3 kg/10mm/m <sup>2</sup>
Water Demand	85-95 % (13.6 - 15.2 litres per bag)
Reaction To Fire	A Z



Avda. Altos Hornos Vizcaya, 33  
Ed. Ilgner. Mods. C-4  
48901 Baracaldo (Vizcaya)

09

EN 998-1

Thermal Insulating Mortar

CS I

Reaction to fire

A Z

**onexit**