

# THERMAL INSULATION



## Cool Mortar

Advanced modified cementitious lightweight, thermal insulating masonry mortar

### Uses

- As a joint filler between lightweights and insulated blocks to obliterate thermal bridging phenomena resulting from normal mortar usage.
- Use between sandwich polystyrene blocks, CMU (Concrete Masonry Unit), or bricks.

### Product Description

Cool Mortar is a cement-based thermal insulating masonry mortar composed of hydraulic binders, selected aggregates, lightweight particles, and high-performance additives. It is supplied as a dry powder in pre-weighed bags ready to use on-site, which requires only clean water to produce cohesive mortar. It is a premium quality product containing a special adhesion additive. Cool Mortar will enable the sandwich block to achieve the required U-value by eliminating the thermal bridge phenomenon. The product provides thermal insulation for building wall sections relying on advanced material technologies.

### Advantages

- Factory controlled pre-blend ensures consistently high quality.
- Requires only the addition of water on-site at the time of usage.
- Suitable for ME harsh weather conditions.
- Easy application with uniform work flow enables high productivity & superior finishing.
- Strong bond in blocks & wall joints.
- Internal & external applications.
- Suitable for wet to dry conditions.

### Technical Data

Cool Mortar	Typical Values @ 25°C
Appearance	Grey colour Powder
Max aggregate size	2 mm
Application Thickness	5 - 15 mm
Wet Density	1.1 kg/L
Pot life @ 25°C (EN 1015-9, method A)	2.5 Hours Approx.
Compressive strength @ 28 days (ASTM C109)	≥ 2.5 N/mm <sup>2</sup>
Water retention @ 28 days (ASTM C1506)	> 75 %
Air content (EN 1015-7 & ASTM C 185)	20 %
Chloride content (EN 1015-17)	< 0.1%
Bond strength @ 28 days (EN 1052-3)	0.15 N/mm <sup>2</sup>
Water Absorption (EN 1015-18)	Water Absorption (EN 1015-18)
Water vapor permeability (EN 1745 A.12)	μ 5/20
Dry hardened density (EN 1015-10, type (L) ≤ 1300kg/m <sup>3</sup> )	1.05 kg/L
Thermal conductivity λ10. dry (EN 1745)	0.18 W/m.K

### Standards Compliance

- SASO ASTM C270, Type O
- BS EN 998-2

## Usage Instructions

### Surface Preparation

The substrate should be sound, clean, free from loose material, grease, laitance, dirt, curing compound, etc.

Wet the entire surface with clean water before the Cool Mortar application to neutralize the substrate suction. The surface should look damp at the time of the Cool Mortar applicatio.

### Mixing

Add to the mixing container 6 - 7.4 liters of water for each 20kg bag of Cool Mortar. Add the powder to the water and mix with a mechanical plaster mixer or low-speed electric drill fitted with a suitable paddle until achieving a uniform, lump-free consistency.

Leave the mixed material to stand for 10 min and briefly remix without adding water.

Manual mixing is allowed for small batch quantities. Mix the whole bag with water for approximately 1-2 min or until achieving a homogeneous mix.

### Application

Saturate the block surface with water before applying Cool Mortar. Remove any excess water.

Spread Cool Mortar on the surface and joints where the blocks will be mounted using a trowel.

Fill the joints in a similar way as per the conventional sand/cement mortar application.

After stiffening, give the Cool Mortar surface a final smoothing to remove protrusions and to eliminate undulations.

### Curing

Cool Mortar is a cementitious product and accordingly should be cured to recommended ACI and international curing practices.

### Cleaning

Clean all tools should immediately after finishing with water. Clean the hardened material mechanically.

## Legal Disclaimer

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## Packaging & Coverage

Product	Pack Size	Yield
Cool Mortar	20 kg Bag	23 liter approx

Product	Coverage
Cool Mortar	6.4 L.M/ 10mm (Solid Block 400x200x200 mm) or 16 Blocks
	8.7 L.M/ 10mm (Solid block 400x200x150 mm) or 22 Blocks
	13 L.M/ 10mm (Solid block 400x200x100 mm) or 32 Blocks

Stated consumption data are for general guidance. Actual consumption depends on the nature of the substrate, method of application, and wastages.

### Shelf Life & Storage

The original sealed bag of Cool Mortar has a shelf life of 12 months, provided it is stored clear of ground in a dry and shaded place below 35°C.

### Health & Safety

Cool Mortar is highly alkaline; therefore, avoid direct contact with eyes or skin. It is recommended to use protective gloves and goggles during application. Any skin contact should be wash with soap & water. In case of eye irritation, immediately wash with a copious amount of clean cold water. Seek medical advice.

Cool Mortar is non-flammable.

For further information, please refer to the material safety data sheet.

### Additional Information

Saveto manufactures a wide range of construction chemicals and specialty products for various applications.

For further information on these products and systems kindly check our website or contact your local Saveto representative.