

Heatshield M1150 Mortar

Factory Pre-Mixed Dry Powder

Product Description

Heatshield M1150 Mortar is a factory pre-mixed dry powder which requires only the addition of clean potable water to become a versatile solution to maintaining fire resistance, primarily in compartment floors where openings are formed to allow for multiple and complex service penetrations. In a fire situation, **Heatshield M1150 Mortar** provides a robust insulating and fire resistant barrier which prevents the passage of flames and hot gases through these openings and which restricts temperature rise on the non-fire side of the floor. **Heatshield M1150 Mortar** is comprehensively tested and independently certified for use with a wide range of penetrating services, and can easily be used in conjunction with other Greentech Heatshield products, such as FS50 Wrapstrip, PC120 Pipe Collars and S500 Intumescent Sealant

Heatshield M1150 Mortar is supplied in 20Kg reinforced paper sacks as standard

Intended Uses

Heatshield M1150 Mortar is comprehensively tested and independently certified in a wide range of applications where electrical and mechanical services penetrate concrete floors.

Penetration Seals

60 mins, 90 mins and 120 mins fire resistance (Insulation & Integrity) when used to seal a range of services penetrating concrete floors. Single electrical cables, cable bundles, insulated steel and copper pipes, loaded cable trays up to 450mm. PVC pipes up to 160mm diameter and electrical conduits in conjunction with other Greentech Heatshield products - PC120 Pipe Collars, FS50 Wrapstrip and S500 Acrylic Intumescent Sealant etc.

Installation Instructions

Heatshield M1150 Mortar is easily mixed and installed using readily available hand tools (suitable container for mixing, handsaw, tape measure, power drill & paddle for mixing, knife, and small hand trowel for finishing).

A. Blank Seals / Apertures

1. Remove all loose debris, grease, oil and bituminous material from all contact surfaces of aperture.
2. Accurately measure dimensions of aperture and mark the positions of any penetrating services. Cut mineral fibre batt (min 50mm thick x 150kg) to ensure a tight friction fit.
3. Press fit the mineral fibre Batt into the aperture ensuring that it is set down and its top surface is 50mm from the surface of the floor.

When fitting the mineral fibre shutter around penetrating services, it may be necessary to use a suitable sealant (e.g. Heatshield S500) where any small gaps are difficult to cut to profile and to prevent the M1150 Mortar from leaking through during installation.

4. Mix the M1150 mortar to the required consistency. As a guide, a mix ratio of 2.5 parts M1150 Mortar to 1 part water is required for a pourable grade and 3 parts M1150 Mortar to 1 part water for a trowel grade (depending on required working time).

ALWAYS ADD THE DRY POWDER TO CLEAN POTABLE WATER.

5. Carefully pour or trowel the previously mixed M1150 Mortar into the aperture on top on the mineral fibre shutter to build up the required minimum thickness ensuring that it is thoroughly mixed and evenly distributed within the aperture, ensuring there are no air pockets around services.
6. When the required thickness has been achieved (it may take several applications to build up the thickness), use a hand trowel to smooth the surface and remove any irregularities.



Key Benefits

- Independently Tested & Certified
- International Approvals
- Solvent Free
- Non Hazardous
- Easy to Use
- Durable
- Readily Available via Local Representatives
- Economic Solution
- 3rd Party Audited & Accredited
- ISO 9001 Quality Assured



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European Assessment Documents:
EAD350454-00-1104 - Sep 2017
ETA 23/0836

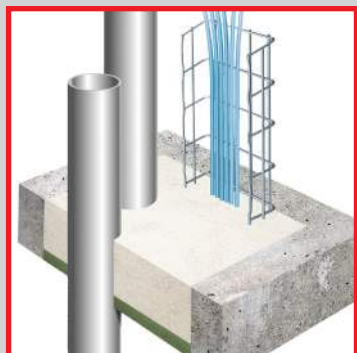


ENCG R.40333

Certificate No:
UL-EU-01304-EN

Heatshield M1150

Factory Pre-Mixed Dry Powder



Physical Properties

Composition	Dry Powder containing Calcium Sulphate & Calcium Carbonate
Colour	Off White
Dry Density (installed)	Typically 1150-1250 Kg / M ³
Mean Flexural Strength	0.59 N/mm ²
Compressive Strength	2.4 N/mm ²
Impact Strength	5.0 N/mm ²
Combustibility	Non-combustible EN ISO 1182
Thermal Conductivity	0.29 (+/- 3%) W/mK
Initial Setting Time	45 - 60 minutes
Typical Yield	Approx 60 Kg per M ² @ 50mm thickness
Limitations	Do not use in conditions of continuous immersion, below ground or in areas of high mechanical abrasion.
Storage	Store in clean dry conditions off floor between 5°C - 35°C
Shelf Life	15 Months in unopened sacks

Fire Performance

Reaction to Fire	BS EN13501.1	Class E
Resistance to Fire	BS EN13501.2	

Penetration Seals - BS EN1366.3

Min 150mm thick rigid floor with 50mm thick M1150 Mortar installed on top of 50mm thick 150kg mineral fibre shutter. M1150 Mortar finished flush with top surface of floor

Multiple Service Penetration Seals

Specifications	Insulation	M1150 Mortar seal details	Classification
Single electrical cable of H07RN-F (4x95mm ²) Ø ≤ 60mm	N/A	1 layer 50x2mm FS50 Wrapstrip wrapped around cable installed flush with top surface of floor	E 120 EI 120
ABS Pipe Ø ≤ 32mm	N/A	2 layers 50x2mm FS50 Wrapstrip wrapped around pipe installed flush with top surface of floor	E 120 C/C EI 120 C/C
PVC Conduit Ø ≤ 19mm	N/A	2 layers 50x2mm FS50 Wrapstrip wrapped around conduit installed flush with top surface of floor	E 120 C/C EI 120 C/C
Insulated copper, steel or cast iron pipe up Ø ≤ 15mm	Min. 25mm thick aluminium foil faced stone wool insulation (CS, 50kg/m ³)	M1150 Only on Mineral Fibre Shutter	E 120 C/C EI 120 C/C
Insulated copper, steel or cast iron pipe up Ø ≤ 67mm			E 120 C/C EI 120 C/C
Insulated copper, steel or cast iron pipe up Ø ≤ 108mm			E 120 C/C EI 90 C/C

Fire Performance

Penetration Seals - BS EN1366.3

Min 150mm thick rigid floor with 50mm thick M1150 Mortar installed on top of 50mm thick 150kg mineral fibre shutter. M1150 Mortar finished flush with top surface of floor

Single Service Penetration Seals

Specifications	Insulation	M1150 Mortar seal details	Classification
Perforated Cable Tray (450 x 25 x 1.1 mm) with Cables See ETA & UL-EU Cert for details	Min. 40 mm thick aluminium foil faced stone wool (50 kg/m ³). Min. 300 mm long from top surface of floor only wrapped around cable tray. Open end of mineral wrap packed with loose mineral wool (50 kg/m ³).	12 mm bead of S500 at interface of insulation (wrapped around cable tray) and surface of M1150 Mortar	E 120 EI 120
Perforated Cable tray (300 x 18 x 1.4mm) With Cables and Steel Conduits. See ETA & UL-EU Cert for details			E 120 EI 60
Electrical cable(s), single or bundle of up to 10 No. of H07RN-F (5x1.5mm ²) Ø ≤ 14mm	N/A	12 mm thickness of S500 around and between cables	E 120 EI 120
PVC Pipe Ø ≤ 160 mm	N/A	5 layers 50x2mm FS50 Wrapstrip wrapped around pipe installed flush with soffit of floor	E 120 C/C EI 120 C/C



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