# M4 lightweight Fire rated Mortar

## DESCRIPTION

A water-based, lightweight, high insulation expanding mortar which provides a fire barrier for up to 3 hours for openings with building service penetrations. It contains no toxic or smoke producing materials and is water resistant after curing.

## APPLICATIONS

Especially designed to reinstate concrete floor and masonry wall openings around building services such as electrical cables, metal or copper pipes, cable trays, and plastic pipes when used with Pyropanel Pyroraps. Perfect for filling fire rated steel door frames with Pyropanel fire doors.

## FEATURES

- Approved to Australian Standards AS 1530.4 and AS 4072.1.
- Suitable for floor and wall penetration applications as shown in examples on sheet 2.
- Suitable for packing Pyropanel steel door frames (refer Pyropanel BUILD tech-sheets for various wall options).
- Water resistant after drying.
- Maximum size in floor = 500mm wide x any length @ 75mm thickness. Refer table on page 2 for penetrations.
- Maximum size in wall = 0.4m$^2$ with maximum 800mm in any direction. Refer table on page 2 for penetrations.
- **Note:** For uninsulated metal/cable penetrations, a mineral fibre insulation may be required to maintain insulation level due to heat transfer via the penetrating element. Australian made.
- 12 months shelf life.

## APPROXIMATE YIELD

- 1 x 20kg = 0.25m$^2$ @ 75mm thick
- 1 x 20kg = 0.20m$^2$ @ 100mm thick

## HANDLING & STORAGE

- Store in a dry place.
- Keep out of reach of children and animals.
- Avoid contact with food.
- Flush eyes with clean water - if irritation persists, seek medical attention.
- If swallowed, rinse mouth with water. Consult a doctor immediately if large quantity has been swallowed.

## INSTRUCTIONS

- Mix contents of bag with 15 litres of water (nominal) - mix only with water.
- Sealing holes in floors:
  - Provide form work under opening and trowel in mortar.
  - Leave formwork in place for at least 24 hours.
  - Note: in large floor penetrations, key in mortar to slab along top edge.
- Frame filling:
  - Lay the frame horizontally.
  - Tape piece of MDF to back of frame head. (MDF pieces sprayed with oil or protected with plastic tape to prevent sticking to mortar)
  - Trowel the mortar on to the upper frame stile.
  - Attach a piece of MDF to the back of this upper frame stile.
  - Flip frame over so other stile is facing up.
  - Fill head and remaining stile with mortar. Trowel level.
  - After mortar has cured (approx. 24 hours), remove MDF formwork and it is ready for installation.



M4 Mortar bag

## MODELS AVAILABLE

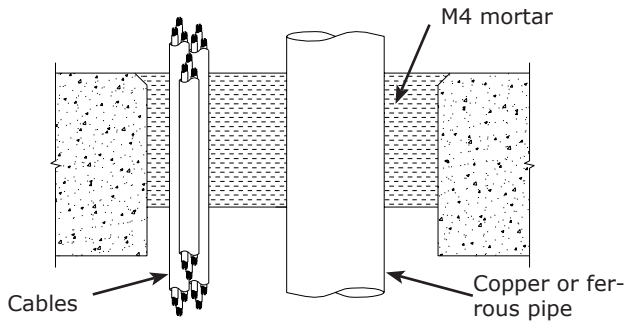| Product code | Product | Details |
|---|---|---|
| PMM420 | M4 Mortar | 20kg bag |

## HOW TO SPECIFY

*Eg, "Fire rated sealant to be Pyropanel "M4 Mortar" fire rated, expanding lightweight mortar, installed as per manufacturer''s instructions".*
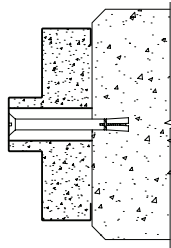
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Example of M4 mortar sealing electrical cables, copper and ferrous pipes.



Example of steel frame packed with M4 Mortar

## PENETRATION CONFIGURATIONS

| Service penetration | Fire protection | Insulation protection | Wall/floor type | Minimum Element thickness (mm) | FRL |
|---|---|---|---|---|---|
| **Electrical cables** | | | | | |
| Cable tray with electrical cables, 3 core + Earth [Single cables up to Ø 54mm(185mm²) and groups of cables up to Ø 21mm each]. | M4 Mortar (≥75mm) | Mineral fibre (≥450 grade), 50mm thick, min. 600mm long, OR Radiation guard | Masonry or concrete walls | 140 | -/120/120 OR -/120/60 (with no Insulation protection) |
| | | | Concrete floors | 150 | |
| Cable tray with electrical cables, single core [Single cables up to Ø 42mm (630mm²)]. | M4 Mortar (≥75mm) | Mineral fibre (≥450 grade), 50mm thick and min. 900mm long, OR Radiation guard | Masonry or concrete walls | 140 | -/120/120 OR -/120/60 (with no Insulation protection) |
| | | | Concrete floors | 150 | |
| **Metal pipes** | | | | | |
| Metal (copper or ferrous e.g steel) pipes up to Ø 100mm nom. with at least 1.7mm nom. wall thickness. | M4 Mortar (≥75mm) | Mineral fibre (≥450 grade), 50mm thick and min. 1100mm long, OR Radiation guard | Masonry or concrete walls | 140 | Up to -/120/120 OR Up to -/120/- (with no Insulation protection) |
| | | | Concrete floors | 150 | |
| Metal (steel & other ferrous) pipes up to Ø 114mm nom. with at least 4.7mm nom. wall thickness. | M4 Mortar (≥75mm) | Mineral fibre (450 grade), 50mm thick, min. 900mm long# OR Radiation guard | Masonry or concrete walls | 140 | Up to -/180/180#, OR Up to -/180/- (with no Insulation protection) |
| | | | Concrete floors | 150 | |
| Metal (copper or ferrous e.g steel) pipes up to Ø 50mm with at least 1.2mm nom. wall thickness. | M4 Mortar (≥116mm) | Mineral fibre (≥350 grade), 50mm thick, min. 600mm long OR Radiation guard | Masonry or concrete walls | 140 | Up to -/120/120 OR Up to -/120/- (with no Insulation protection) |