

SELECTION & SPECIFICATION DATA

Generic Type	Fireproof mortar for passive fire protection of metal and concrete structures.
Description	Portland cement based, low density, fireproof mortar, with high performance against fire for the protection of metal and concrete structures. Density 375 Kg/m ³ . High fire performance, optimised consumption and savings in consumables. Suitable for the architectural and construction market.
Features	<ul style="list-style-type: none"> • Formulation with high performance light fillers. • Non-combustible. • High durability. • It is recommended to be projected with a discontinuous machine to optimise performance. • Asbestos free. Complies with regulations 2003/18/CE and RD 396/2006. • High adhesion on metal and concrete substrates. • Lightweight and low abrasive with projection equipment. Savings in consumables. • Low protection thickness. • Tolerates a wide range of weather conditions.
Colour	Grey. <u>Note:</u> Product colour may vary due to variations in the colour of Portland cement.
Finish	Rough. Can be smoothed.
Primer	Pyrocrete 60 can be applied directly to concrete or primed metal and is compatible with different families of primers. No pre-priming or bonding is required for application to concrete. Please contact Technical Service for further information. Pyrocrete 60 neither promotes nor prevents corrosion.
Application Thickness	Maximum thickness per layer 25 mm on concrete substrate and maximum thickness per layer 15mm on steel. Not recommended for use as a refractory mortar or where normal operating temperatures exceed 90°C.
Theoretical Coverage Rates	Average value obtained in laboratory conditions, with a kneading speed of 60 rpm and a time of 90s. If any of these parameters are modified, both the final density and the yield could be altered.
Topcoats	Generally not necessary. In highly corrosive atmospheres, contact Technical Service for the selection of the most suitable coating for the required exposure.

SUBSTRATES & SURFACE PREPARATION

General	Prior to application, the substrate must be clean and free of loose particles, dirt, oil, grease, condensation or any other substance that may affect adhesion. Contact Technical Service for more information.
Steel	Apply a suitable anticorrosive primer, preparing the steel as indicated in the product data sheet. Contact Technical Service for a list of approved primers.
Concrete	Can be applied directly to concrete, no primer or bonding bridge is required.

MIXING & THINNING

Mixer	<p>Machine: Discontinuous. Use a plaster mortar mixer or similar with a capacity of at least 100 litres and capable of rotating at 60 rpm with rubber-tipped blades that clean the sides of the hopper. Continued. Contact Technical Service for recommendations. Densities and yields may vary when using this type of mixing equipment.</p>
Mixing	Always mix with clean potable water. The mixer must be kept clean and free of any previously mixed material that may cause premature setting of the product. Mixing of 2 bags with batch machines is recommended. Mixing time should be approximately 1.5 minutes per mix at 60 rpm. Use 15 litres of water per 15kg bag. Add water to the hopper first with the blades stopped. With the mixer on, add mortar to the water and begin mixing.
Pot Life	1 hour at 20°C, the higher the temperature, the shorter the use time. These times are approximate and may also vary depending on ambient humidity and draughts. The service life of the material ends when it hardens and becomes unusable.

THINNING & MIXING cont.

Density	<p>Target paste density: 550 - 650 kg/m³. Paste density measurements are critical to obtain adequate hardened mortar densities. When verifying paste densities, use the following procedures:</p> <p>Equipment required:</p> <ul style="list-style-type: none"> • 1 litre (1000 cc) plastic cup or known volume. • Small metal spatula. • Scale accurate to 1 gram. <p>• Determination of the paste density of PYROCRETE 60: -Weigh the empty glass and then tare the scale.</p> <p>• Use the spatula to fill the beaker completely with kneaded mortar (do not deform the beaker).</p> <p>• Remove excess material from the top of the vessel by placing the vertical edge of the trowel on the top edge of the vessel. Use a sawing motion to level the mortar. PYROCRETE 60 mixed flush with the top of the glass. Weigh the beaker filled with mortar to the nearest gram.</p> <p>Record the weight of the material in grams. This value is equal to the paste density in kg/m³ (g/l).</p> <p>For more information and recommendations on how to get the right density and performance, please contact your representative.</p>
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APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

Pump	<p>This material can be pumped with a wide range of piston, rotor, stator and compressor pumps designed to pump cement and gypsum materials, including:</p> <p>PFT - model # ZP 3 L Multimix (Discontinued) Putzmeister - model # S5EV (Discontinued) Wall Goe - model # JP70-L. (Discontinued) Putzmeister - model # MP25 (Continued) PFT - model # G4 Smart (Continued) Essick - model # FM9/FM5E (Continued) Hy-Flex - model # HZ-30E (Continued)</p> <p>Ball valves should be located at least at the end of the spray hose to facilitate cleaning.</p>
Material Hose	<p>Use flexible spray hose of 5 to 10 m length and at least 25 mm inner diameter. Working pressure at least 30 bar. Minimum length of the spray lance 300 mm and minimum inside diameter 25 mm. With ball valve for material shut-off and air shut-off valve.</p>
Nozzle/Gun	<p>From 10 to 16 mm depending on the desired finish.</p>
Compressor	<p>The pump compressor must be capable of maintaining a minimum of 2 bar (30 psi) and 250 to 300l/min at the nozzle.</p>
Air Line	<p>Use an internal diameter of 16 mm. Hose with a minimum burst pressure of 100 psi (7 bar).</p>

APPLICATION PROCEDURES

General	<p>Thicknesses of 25 mm or less can be applied in one pass. When additional coats are required to achieve the specified thickness, it is recommended that subsequent coats be applied after the previous coat has begun to set. If the previous coat has set and is dry, dampen the surface with water before applying additional coats. Contact Technical Service for further information.</p>
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APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	4°C	4°C	4°C	0%
Maximum	38°C	52°C	43°C	90%

Fresh Pyrocrete 60 must be protected from rain or running water for 24 hours after application. In conditions of low humidity, high temperature, direct sun or wind, the surface of PYROCRETE 60 should be kept moist for at least 12 hours after application by water mist or plastic sheeting to control water loss. Caution: Do not start spraying if the ambient temperature is expected to drop below 2 °C within 24 hours after application. For additional recommendations contact Technical Service.

CURING SCHEDULE

Surface Temperature	Dry to Topcoat
21°C	4 Hours

CLEANUP & SAFETY

- Cleanup** | The liner, mixer and hose must be cleaned with potable water at least once every 4 hours at 21°C or more often at higher temperatures. Sponges or plenty of water should be passed through the hose to remove any remaining material in the hose. Excess wet sprayed Pyrocrete 60 mortar should be cleaned up with clean potable water. Dry mortar due to spraying may require scraping to remove.
- Safety** | Follow all safety precautions described in the mortar safety data sheet. The use of personal protective equipment, including application suits, gloves and eye protection is recommended.
- Overspray** | Adjacent surfaces must be protected from damage and splashing. Sprayed-on fireproofing materials can be difficult to remove from surfaces and may damage architectural finishes.
- Ventilation** | In enclosed areas, ventilation should not be less than 4 full air exchanges per hour until the material is dry.

TESTING / CERTIFICATION / LISTING

- General** | Pyrocrete 60 has been tested by:
EN 1363-1. Fire resistance tests. Part 1: General requirements and Standard.
EN 13381-3. Test methods for determining the contribution to the fire resistance of structural members Applied protection to concrete members Applus Laboratories.
EN 13381-4. Test methods for determining the contribution to the fire resistance of structural members Applied passive protection products to steel members by Applus Laboratories.

PACKAGING, HANDLING & STORAGE

- Shelf Life** | 12 to 24 months maximum, provided the product is stored under the recommended conditions.
- Storage** | Store indoors and in a dry environment. The material must be kept dry or lumps may occur.
- Packaging** | Packaging 15 kg bag, 42 bags per pallet.

WARRANTY

- Guarantee/Warranty** | Tremco CPG Australia Pty Ltd products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG Australia written instructions and (b) in any application recommended by Tremco CPG Australia, but which is proved to be defective, will be replaced free of charge.

Any information provided by Tremco CPG Australia in this document in relation to Tremco CPG Australia's goods or their use is given in good faith and is believed by Tremco CPG Australia to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. Tremco CPG Australia makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.
- Health & Safety Precautions** | The Safety Data Sheet (SDS) must be read and understood prior to use.
- Technical Service** | Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.



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