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Technical Data Sheet

CROSpatch Lite 310
Repair Mortar

CROSpatch 310 Lite is a high-build, lightweight patching and repair mortar, polymer-modified for enhanced performance. It achieves a 4-hour Fire Resistance Level (FRL) when tested to AS 1530.4:2014 and is classified as non-combustible in accordance with AS 1530.1.

Recommended Uses:

- Patching repairs and covering metal joining plates in tilt up or pre-cast panel.
- Repairing any damaged concrete or pre-cast or tilt up panels that is non-structural.
- Repairs requiring high build application up to 100mm for vertical applications.
- General high build up repairs where a non-structural repair mortar is required for vertical and overhead applications.

Advantages:

- Achieves a 4-hour Fire Rating Level (FRL) as tested to AS1530.4:2014.
- Non-Combustible as tested to AS1530.1.
- Suitable for high build applications up to 100mm.
- Polymer modified, providing excellent adhesion to substrates, with high bond strengths.
- Easy preparation – just add water.
- Negligible shrinkage.
- Fast drying.
- Tear and rain resistant PE bags which are recyclable and reduce product loss from damaged packaging.

Surface Preparation:

All surfaces must be structurally sound, clean and dry. Surface must be free from dust, dirt, wax, grease, asphalt, latex and gypsum compounds, adhesives, paint, curing and sealing compounds and other contaminants which may act as a bond breaker.
Any cracked or weakened surface should be removed and repaired to provide a solid foundation. It is recommended that for large areas a minimum depth of 10mm be prepared as to avoid excessive feather edging or skim coating. If required, cut all edges of the recess to be repaired with a concrete cutting tool, ensuring a straight edge where a minimum depth of 10mm is achieved.
If any corroded steel is present remove all loose scale and corrosion/rust deposits. Grit blasting is effective in removing corrosion, and all steel including re-bars should be cleaned to a bright condition. Immediately after cleaning steel, the steel should be treated with CROSpatch ZR Primer. This will stop further oxidation and corrosion.

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Substrate Priming:

On a well prepared and roughened concrete substrate a bonding primer is generally not required. Ensure the surface is saturated with water, but must be dry on the surface, with no presence of any residual surface water.
A bonding primer is required when trying to achieve improved build thickness. We recommend the use of CROSflow® Primer. Apply the primer to the surface, and before the primer dries, and whilst it is still tacky, apply the **CROSpatch® 310 Lite**. If the CROSflow® Primer dries before the mortar is applied, it is important that a fresh coat of primer be applied, and that the mortar be applied whilst it is still tacky.

Mixing:

1. CROSpatch® Lite 310 must be mechanically mixed using a forced action high shear mixing paddle. Do NOT mix by hand, as this can have a significant impact on the consistency, application properties and ultimate strength of the product.
2. Place 3.2 – 3.5 litres of potable water per 10kg bag, into a clean appropriate mixer.
3. Start mixer and add CROSpatch® Lite 310 gradually while mixing.
4. After the addition of all the powder, continue mixing for 2-3 minutes to ensure proper activation of additives and optimal product performance.
5. Do Not add excess water – it will reduce strength, extend drying time and alter the application properties.

Placement:

Place **CROSpatch® Lite 310** within 30 min of mixing. Be wary of temperature considerations when placing the product. **CROSpatch® Lite 310** is best applied by use of a traditional Hawk and Trowel for vertical and overhead surfaces. Trowel the product into the properly prepared recess, ensuring it is pushed into all areas to achieve a complete fill of the gap, and then smooth over. Alternatively, the texture of the mixed product allows it to be rolled into balls in the palm of your hand and thrown at the patch – it will spread into the patch and hold in place until the applicator is ready to smooth it over. For an application to meet a 4-hour FRL, in accordance with AS1530.4:20104, **CROSpatch® Lite 310** needs to be applied at a minimum thickness of 23mm.
Subsequent further finishing using a steel trowel or a float (either wooden or plastic) can be done within the working time of the product, to achieve the desired finish.

Temperature Consideration:

The mechanism of interaction between cement and water is temperature sensitive. The set time is delayed at low temperatures and is accelerated at high temperatures. To avoid significant change in setting times, the recommended water temperature, ambient and substrate temperature ranges are:
Water Temperature Range: 15 – 25˚C. Working with temperatures outside of this range will also impact the fluidity of the product.
Ambient Temperatures: Do not apply at a temperature less than 10˚C. Above 30˚C, consider using cooled water for mixing the product. Do not apply in temperatures above 35˚C.
Substrate Temperature: Do not apply onto a surface which has a temperature less than 10˚C or above 35˚C.

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CROSpatch Lite 310 - Product Data:

Property	Test Method	Result	
Application Thickness (mm)		10 - 100mm	
10 kg Bags Per Cubic Metre		74	
Yield / 10 kg Bag		13.5 Litres	
Working Time (min):		30 min	
Fresh Wet Density kg/m³	AS1012.5	Approx 900-1000 kg/m³	
Setting Time (min)	AS1012.18	Initial	150
		Final	180
Compressive Strength (MPa)	AS1478.2	1 Day	2
		7 Days	8
		28 Days	15
Flexural Strength (MPa)	AS1012.11	28 Days	4

The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions. Testing parameters - 33% of water.

Packaging:

10kg Polyethylene (PE) bags.

Shelf Life & Storage:

Shelf Life:
The shelf life of the product is 18 months from the date of manufacture, if stored indoors in accordance with recommended storage conditions. The shelf life of the product in 1000kg Bulk bags is 1 month, if stored in accordance with recommended storage conditions.

Storage:
Store in dry conditions, in unopened and undamaged PE bags or Bulk Bags, and in temperatures below 30C. If stored in excessive temperature conditions, externally exposed to the elements or in high humidity conditions, the shelf life may be reduced.

Safety Data:

This product may cause irritation and an allergic reaction to the skin. It may cause serious eye injury and irritation to the respiratory system. In case of contact with the eyes rinse with running water (15 mins) including removal of contaminated clothing. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/ fume/gas/mist/vapours/spray. Ensure adequate ventilation during mixing and application. A class P2 dust mask is recommended for use when handling powdered material, and whilst grinding or scabbling floors. For detailed information, refer to the SDS for **CROSpatch® Lite 310**, available at www.crosbe.com.

Contact Crosbe:

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Important Notice:

A Safety Data Sheet (SDS) is available from the Crosbe website (crosbe.com). Please read the SDS carefully prior to using this product. In an emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia).

Product disclaimer:

Recommendations and advice regarding the use of this product are to be taken as a guide only. The manufacturer of this product and any of its affiliate companies cannot be held responsible for any loss or damage arising from the incorrect usage of this product. The use of this product is beyond the manufacturers control, and liability is restricted to the replacement of material should the product be proven faulty. The information contained herein is to the best of our knowledge, true and accurate. We reserve the right to update information without prior notice. No warranty is implied or given to its completeness or accuracy in describing the performance or suitability of the product for a particular application.