Technical Data Sheet

CROSfill® 510 Construction Grout

CROSfill® 510 Construction Grout is a general purpose, high ultimate strength, Class A Construction Grout. It can be mixed to a stiff or plastic or pourable consistency to an applied thickness of 10mm –100mm. **CROSfill® 510 Construction Grout** is specially formulated with Portland cement, graded fillers and performance additives to reduce water demand and shrinkage. It is non-shrink, being shrinkage compensated in the plastic stage.

Recommended Uses:

CROSfill® 510 is suitable for most void filling grouting applications including core holes, grouting under precast panels and concrete sections, hollow block walls, under column bases, anchor bolt filling, and general concrete repair work.

Advantages:

- **CROSfill® 510** is classified as Non-Hazardous with respect to Respirable Crystalline Silica (RCS) as it contains less than 0.1% RCS.
- Versatile and easy to use premixed grout.
- Shrinkage compensated in the plastic stage.
- High ultimate strength – over 80MPa at 28 days when mixed to a plastic consistency.
- Durable, hard-wearing finish.
- Free of chlorides.
- Free of iron – will not rust or stain.
- Excellent non-sag properties, allowing grout to hold shape when mixed to a stiff or plastic consistency.
- Tear and rain resistant PE bags which are recyclable and reduce product loss from damaged packaging.

Surface Preparation:

Thorough substrate preparation is essential for achieving adequate bond strength of **CROSfill® 510**. Substrate surfaces including base plates must be free from grease, oil, dust and any loose particles that may interfere with the bond. Surfaces **MUST** be pre-soaked with fresh water before grouting. Remove any free water immediately before grouting. Formwork should be constructed carefully where required to retain the grout. Carefully seal any gaps with a non-porous material to prevent leakage of grout.

Mixing:

CROSfill® 510 must be mechanically mixed using a forced action high shear mixing paddle.

Consistency	Litres/20Kg Bag
Stiff	2.4 - 2.6
Plastic	2.6 - 2.8
Pourable	3.2 - 4.0

1. Following the recommended water addition, measure the required amount of water to achieve your desired consistency.
2. Place approximately 90% of the pre-measured potable water into a clean bucket.
3. Add **CROSfill® 510** gradually while mixing.
4. Continue mixing for 2 minutes after final addition of ingredients.
5. Slowly add the remaining water until the desired consistency is achieved and mix for a further 1 minute.
6. Use grout within 30 minutes of mixing. Do not attempt to retemper.
7. Do NOT add additional water, as this can cause the grout to segregate and bleed, impacting its performance.

Pumping:

Select an effective pumping method (eg Positive Displacement Pump) to match the specific application, taking into consideration the total volume of grout, distance and change in level from pump to area of application.

Remove any excess water from grout hoses prior to pumping.

It is important to continuously agitate the grout after mixing and during the pumping process. If the grout is allowed to sit unagitated, it will increase in viscosity and may become more difficult to pump.

Grouting equipment should be rinsed / flushed regularly to prevent the build-up of grout on surfaces. Built-up grout can become dislodged and cause blockages during the grouting process.

Dispose of any unused grout in an appropriate disposal area or construction waste bin.

Placement

Place grout within 30 minutes of mixing.

Stiff Consistency - Place grout by hand and ram into place

Plastic Consistency - Rod into place

Pourable Consistency - To facilitate grout movement, gently rod the grout during pouring.

10mm minimum thickness of grout is recommended.

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 Temperature: 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.

CROSfill® 510 Construction Grout – Product Data:

Application Thickness (mm)	**10 – 100 mm**			
Time for Expansion (min)	**Start**		**Finish**	
	15		45	
20 Kg Bags per cubic metre	**Stiff**		85	
	Pourable		94	
Expansion (per ASTM C1090-01)	**Change in Height %**			
	1 day		0.0	
	7 days		0.0	
	28 days		0.0	
Fresh Wet Density (kg/m³)	Approx. 2000Kg/m³			
Yield / 20Kg Bag	**Consistency**		**Yield (L)**	
	Stiff		10.5 – 10.7	
	Plastic		11.1 – 11.4	
	Pourable		11.9 – 12.4	
Setting Time (min)	**Consistency**		**Initial**	**Final**
	Plastic		225	315
	Pourable		285	345
Compressive Strength (MPa) In accordance with AS1478.2 Appendix A	**Consistency**	**1 Day**	**7 Days**	**28 Days**
	Stiff	>30	>60	>85
	Plastic	>20	>55	>80
	Pourable	>15	>50	>65
Flexural Strength (MPa)	**Consistency**	**28 Days**		
	Plastic	>10.0		
	Pourable	>6.0		

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.

Packaging:

20kg 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.

Storage

Store in dry conditions, in unopened and undamaged PE 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 **CROSfill® 510**.

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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.