Crosbe Pty Ltd
1300 797 560
info@crosbe.com
ABN: 84 625 848 722
3 Viewbrook Close, Seven Hills

Technical Data Sheet

InfraGrout® 110

InfraGrout® 110 is a high strength, ultra-high flow, low bleed, pumpable cementitious grout with extended working time. It is engineered for civil applications, including grouting of PT bridge ducts, ground anchors and soil nails. crosbe InfraGrout® 110 is free from methocell and ligno- sulphonate based additives, aluminates, and metallic expansion agents.

Recommended Uses:

Grouting horizontal and vertical ducts within single or multiple bonded post-tensioned strand systems.
Grouting of ground anchors and soil nails.

Advantages:

- InfraGrout 110 is classified as Non-Hazardous with respect to Respirable Crystalline Silica (RCS) as it contains less than 0.1% RCS
- Sand-free pumping into areas with tight clearance requirements
- High flow proprieties even at low-rate w/c ratio
- No expansive mechanism
- low bleed, even at high flow & does not segregate
- Rain and tear resistant PE bags reduce wastage

Preparation:

Before mixing grout, ensure grouting tubes are free of obstructions.
Fill the mixing hopper with sufficient clean water to prime and cool the pump, grout hoses and nozzles. In post-tensioned systems, ensure ducts are from loose particles, residue or dirt that may interfere with the flow of grout through the ducts or compromise the bond between the grout and the surface of the strand.

Mixing:

1. Place 6.4 litres of potable water per 20kg bag into a clean, high-shear mixer.
2. Start the mixer and add InfraGrout® 110.
3. After adding the last bag, continue mixing for 4 minutes to ensure proper activation of additives and optimal product performance.

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Pumping:

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

Remove any excess water from grout hoses before 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 viscosity and may become more difficult to pump.

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

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

Temperature Consideration:

The mechanism of interaction between cement and water is temperature-sensitive. The recommended ambient temperature and water temperature range is 15 – 25˚C to avoid significant change in setting times.

Working with temperatures outside this range will also impact the fluidity of the grout.

Do not apply grout with ambient temperatures less than 10˚C. When ambient temperatures are above 30˚C, consider using cool water for mixing the grout.

InfraGrout® 110 – Product Data:

Property	Test Method		Test Result
Bleeding	ASTM C940		< 0.3%
Volume Change	ASTM C 1090	At 24 hours	0.1%
		At 28 Days	0.1%
Early Expansion	ASTM C940	At 3 hours	< 2%
Fluidity	ASTM C939 *	Initial Flow	< 20 s
		Change in Flow @ 45 min	< ± 3 s
Compressive strength	AS 1478.2 Appendix A	7 days	> 55 MPa
		28 days	> 75 MPa
Sulphate Content	AS 1012.20		< 1.00%
Chloride Content	AS 1012.20		< 0.03%
Nitrate Content	APHA 4500F		< 0.001%

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Pump Life			≈ 80 minutes
Fresh Wet Density	AS 1012.5		2025 kg/m³
Yield	Approximate yield per 20kg bag		13.0 litres

Testing Parameters: 0.32% of water. Laboratory at: 23±2 ˚C > 50% RH
** Modified to measure efflux time for 1.0 Litre of grout*
**** Compressive strength testing conducted using 75mm cubes

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:

InfraGrout 110 is classified as Non Hazardous with respect to Respirable Crystalline Silica (RCS) as it contains less than 0.1% RCS. 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. For detailed information, refer to the SDS for **InfraGrout® 110**, available at www.crosbe.com.

Contact Crosbe:
Sydney – Head Office
ABN: 58 617 674 085
3 Viewbrook Close, Seven Hills NSW 2147 Australia
Ph. 1300 797 560 – Fax. 1300 797 580
info@crosbe.com

crosbe.com

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.