

# Technical Data Sheet

## InfraGrout® 110

**InfraGrout® 110** is a high strength, ultra-high flow, zero bleed, pumpable cementitious grout with extended working time. 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:

- Sand free pumping into areas with tight clearance requirements
- High flow properties even at low rate w/c ratio
- No expansive mechanism
- Zero bleed even at high flow
- Rapid strength gain
- Does not segregate
- Rain and tear resistant PE bags reduce product loss from damaged packaging

### Preparation:

Prior to mixing grout, ensure grouting tubes are free of obstructions.

Fill mixing hopper with sufficient clean water to prime and cool the pump, grout hoses and nozzles. In post tensioned systems, ensure ducts are free 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 surface of the strand.

### Mixing:

1. Place 6.4 litres of potable water per 20kg bag (0.32 water/powder ratio) into a clean, high shear mixer
2. Start mixer and add **crosbe InfraGrout® 110**
3. After the addition of the last bag, continue mixing for 4 minutes to ensure proper activation of additives and optimal product performance.



### Pumping:

Select an effective pumping method 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.

### Temperature Consideration:

The mechanism of interaction between cement and water is temperature sensitive. To avoid significant change in setting times, the recommended ambient temperature and water temperature range is 17 – 25 °C.

Working with temperatures outside of 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 32 °C, consider using cool water for mixing the grout as well as rinsing and flushing equipment and ducts.

### Crosbe InfraGrout® 110 – Product Data:

Property	Test Method		Test Result
<b>Bleeding</b>	ASTM C940		<0.3%
<b>Volume Change</b>	ASTM C1090	At 24 hours	0.1%
		At 28 Days	0.1%
<b>Early Expansion</b>	ASTM C940	At 3 hours	< 2%
<b>Fluidity</b>	ASTM C939*	Initial Flow	< 14s
		Change in flow @ 45 min	< 3s
<b>Compressive Strength</b>	AS 1478.2 - Appendix A**	7 days	> 50MPa
		28 days	> 70MPa
<b>Sulphate Content</b>	AS 1012.20		< 1.00%
<b>Chloride Content</b>	AS 1012.20		< 0.03%

<b>Nitrate Content</b>	APHA 4500F	<0.001%
<b>Pump Life</b>	AS 1012.20	≈ 80 minutes
<b>Fresh Wet Density</b>	AS 1012.5	2025 kg/m <sup>3</sup>
<b>Yield</b>	Approximate yield per 20kg bag	13.0 Litres

Testing Parameters: 0.32% of potable 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:**

24 months from date of production if stored indoors in undamaged and unopened PE bags.

**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.

**FOR MORE INFORMATION ON CROSE PRODUCTS PLEASE CONTACT US:**

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