

# Technical Data Sheet

## InfraGrout® 190

**InfraGrout® 190** is a pumpable, thixotropic cementitious grout designed for encapsulation of roof bolts and cable anchors in tunnelling and underground mining applications where top down grouting methods are required. InfraGrout® 190 is formulated with advanced additives and supplementary cementitious materials to form a low shrinkage, low chloride, high yield and high ultimate compressive strength grout.

### Advantages:

- Rapid thixotropy provides gravity resistance
- Pumpable even at low rate w/c ratio
- Low bleed even at high flow
- SCM provide for increased density and durability
- Does not segregate
- Rain and tear resistant PE bags reduce product loss from damaged packaging

### Mixing:

1. Place up to 7.0 litres of potable water (per 20kg bag) into a clean, high shear mixer
2. Start mixer then slowly add InfraGrout® 190
3. Mix for 3-4 minutes after the addition of the last bag, ensuring the grout is uniform and free of lumps.
4. Commence pumping whilst continuing to agitate grout.
5. Any grout remaining unused 60 minutes after mixing should be discarded. Do NOT retemper grout by adding water.

### 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.

Prior to mixing grout, rinse mixer and flush grout lines with water to cool grouting equipment. Discharge any excess water from pump hopper and 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 decrease its pump life.



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® 190 – Product Data:

Property	Test Method		Test Result
<b>Bleeding</b>	ASTM C940		<0.5%
<b>Compressive Strength</b>	AS 1478.2 Appendix A	7 days	> 60MPa
		28 days	> 80MPa
<b>Shrinkage</b>	AS 2350.30	28 days	< 500 micro strain
<b>Chloride Ion Content</b>	AS 1012.20		< 0.03%
<b>Pump Life</b>			≈ 80 minutes
<b>Fresh Wet Density</b>	AS 1012.5		1980 kg/m <sup>3</sup>
<b>Yield</b>	Approximate yield per 20kg bag		13.6 Litres

Testing Parameters: 0.35% of water. Laboratory at: 23±2 °C > 50% RH.

#### 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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