Crosbe
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Technical Data Sheet

PT Grout

PT Grout is a high performance, pumpable, low bleed, cementitious grout with exceptional strength and durability. Engineered for grouting of post tensioning ducts and suitable for other high flow grouting applications.

Recommended Uses:

Pumping and filling areas around post tensioned cables to encapsulate the steel and protect it against corrosion. Grouting horizontal and vertical ducts within bonded post tensioned strand systems.

Advantages:

- PT Grout is classified as Non-Hazardous with respect to Respirable Crystalline Silica (RCS) as it contains less than 0.1 % RCS.
- High flow properties even at low water/cement ratio.
- Low bleed even at high flow.
- Sand free pumping into areas with tight clearance requirements.
- Does not segregate.
- No aluminium metal expanding agents – complies with RMS requirements.
- Tear and rain resistant PE bags which are recyclable and reduce product loss from damaged packaging.
- Highly accurate and consistent bag weights.

Preparation:

Prior to mixing grout, ensure duct inlets and outlets are free of obstructions. Fill mixing hopper with clean water and prime pump, grout hoses and nozzles. Flush ducts with clean water to lubricate and remove any 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 7.2 - 8.0 litres of potable water (per 20 kg bag) into a clean, appropriate mixer. Never exceed the maximum recommended water ratio of 8.0 litres per 20 kg bag.
2. Start mixer and add PT Grout gradually while mixing.
3. After the addition of the last bag, continue mixing for 4 - 5 minutes to ensure proper activation of additives and optimal product performance.
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.

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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 grouting hoses. Connect the grout nozzle to the duct inlet tube and commence continuous pumping until grout begins to flow from the outlet tube. Stop pumping and seal grouting tubes. Repeat the process as required.
It is important to continuously agitate the grout after mixing and during the pumping process – this should be done at low speeds. If the grout is allowed to sit unagitated, it will increase in viscosity and may become more difficult to pump.
Do not commence mixing of subsequent batches until all grout in the mixer has been used. 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. The set time is delayed at low temperatures and is accelerated at high temperatures. To avoid significant change in setting times, please follow the recommendations detailed below.
Water Temperature: The ideal range for the temperature of water is always 15 – 20 ˚C. In both cold and warm conditions, this range provides a very good basis to work with.
Material Temperature: If possible, it would be ideal to store the powders in such a way as to ensure that they are always maintained at a temperature of 15 – 20 ˚C. Storage conditions on job sites are not always ideal, but it is most important that you ensure that the material is not allowed to be exposed long term, to temperatures outside the range of 10 – 30 ˚C.
Ambient Temperatures: Do not apply at a temperature less than 10 ˚C. In these conditions, it is extremely important to condition the material and water as set out above. Do not apply in temperatures above 35 ˚C. In temperatures above 30 ˚C, consider using cooled water for mixing the product.
Substrate Temperature: Do not apply onto a surface which has a temperature less than 10 ˚C or above 30 ˚C.
For more detailed information, refer to the Crosbe Technical Bulletin on Temperature & Environmental Effects.

Crosbe PT Grout – Product Data:

Property	Test Method		Test Result
Bleeding	ASTM C940		0.40%
Setting Time	ASTM C 1012.18	Initial	175 minutes
		Final	245 minutes
Fluidity	ASTM C939	Initial Flow	15 - 20 seconds
		Change in Flow in 45 min	< 3 seconds
Compressive Strength	AS 1478.2 Appendix A	1 day	> 16 MPa
		7 days	> 50 MPa
		28 days	> 65 MPa
Chloride Content	AS 1012.20		0.02%
Pump Life			90 minutes
Fresh Wet Density	AS 1012.5		2000 kg/m³
Yield	Approximate yield per 20 kg bag		14 litres

Testing Parameters: 40% of water. Laboratory at: 23±2 ˚C > 50% RH.

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Packaging:

20 kg Polyethylene (PE) bags, or lined 1000 kg bulk bags

Shelf Life & Storage:

Shelf Life
The shelf life of the product in 20 kg PE bags 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 30 ˚C. 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 PT Grout 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, and whilst grinding or scabbling floors. For detailed information, refer to the SDS for PT Grout, available at www.crosbe.com.

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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.