

Thixotropic Grout

High strength

Gravity resistant

Pumpable with long pump life

Long term durability with no segregation

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Thixotropic Grout

DESCRIPTION

ARDEX CE 980 is a thixotropic cementitious grout which flows under pumping pressure but remains stable under gravity forces, making it suitable for a wide range of civil engineering applications.

ARDEX CE 980 has been widely used in various tunnel and mining applications due to its ease of use and reliability. The silica fume provides added density and durability for 100 year design life.

USES

- Void filling
- Rock bolt grouting
- · Top down grouting
- · Ground stabilisation

ADVANTAGES

- High strength
- · Long pump life
- No segregation
- · Gravity resistant
- Long Term durability
- · High load transfer to rock/ground

PREPARATION

Check to ensure the pump lines and grout lines are free from blockages by flushing out with potable water. The hoses should be checked by flushing out with air or other approved means to remove excess water from the pump and grout lines. Check that all connections are sealed prior to grouting.

MIXING

Mix only the amount of material that can be placed within 60 minutes.

The grout can be mixed with different water rations, depending on the job application. Pre-dampen the inside of the clean mixer and remove any excess water. Measure approximately 80% of the required water into a high shear mixer and slowly add ARDEX CE 980 while mixing. Mix for approximately 2-3 minutes. Then add the remaining water and mix for about 2-3 minutes or until it is fully homogenized.

The water content of the grout should be kept as low as possible, and not exceed the maximum recommended water ratio of 8 litres of water per 20kg of ARDEX CE 980. It is important to pump the grout in a steady flow while the grout is agitated continuously to avoid gelling.

PUMPING

Once the grout has been mixed you need an effective pumping method to deliver it to the area of application. Various models of mixers are available for use, all with varying specifications. It is important to match your application's specifics with the capabilities of the mixer and pump. ARDEX can recommend the right mixer for your project.

Prior to pumping grout, rinse the mixer and charge the pump hopper with sufficient water to flush and cool the pump and all grout lines thoroughly. Check to ensure that all lines and hoses are clear and unobstructed. Once grout is mixed, it is important to keep it agitated continuously prior to pumping. It is important to pump continuously.

Following completion, dispose of excess production material in consideration of the environment. Carefully wash out mixer tanks and agitators into the pump hopper and pump the resulting washout material through the grout hoses to a suitable disposal site.

APPLICATION

The mix water's temperature should be kept as low as possible to prevent the grout from hydrating too rapidly. As with the water temperature, the higher the air temperature the more quickly the grout hydrates and sets. ARDEX specify mixing times and set times at an ambient temperature of 20°C. These times vary with temperature fluctuations, and adjustments will be required to compensate for this. In some cases, it may be necessary to cool the material, the mix water, keep the temperature as low as possible.

It is estimated that every 10°C increase in temperature will halve the product set time. Likewise, every 10°C reduction will double the set time. ARDEX must be consulted for extreme temperature applications.

PACKAGING

20kg bag

CLEAN UP

All grouting equipment shall be thoroughly washed with clean water after grouting operations for that day are completed.

SHELF LIFE

ARDEX CE 980 has a shelf life of 12 months when stored in the original, unopened packaging in a dry place at 23°C and 50% relative humidity.

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TECHNICAL DATA

Mixing Ratio	6 – 8 L of water per 20kg bag	
	0.3 – 0.4 (w/r) *	
Coverage	13.8L per 20kg bag @ 35% water	

CHARACTERISTIC	TEST METHOD	TEST RESULT	
Compressive Strength: 1 day 7 days	ASTM C942	@30% w/r ≥ 25MPa ≥ 50MPa	@35% w/r ≥ 20MPa ≥ 40MPa
28 days Bleeding	ASTM C940	≥ 65MPa ≥ 55MPa <0.1%	
Setting Time: Initial Final	ASTM C953	@ 35% w/r ≥150 minutes ≤ 300 minutes	
Fresh Density	BS EN 1015-17-2000	1900 - 2100kg/m3	
Modulus of Elasticity			

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SAFETY DATA

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure. Do not breathe dust/fume. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye protection and face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/ attention. Immediately call a POISON CENTER/doctor/physician/first aider. IF ON SKIN: Wash with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Store locked up. Store in a well-ventilated place. Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Before any substrate preparation, installation or finishing methods relating to ARDEX product are undertaken, please be aware of any potential risks and use appropriate PPE (personal protective equipment). This may involve contacting substrate manufacturers for Safety Data Sheets.

GUARANTEE

ARDEX Australia Pty Ltd ("we" or "us") guarantees this product ("our goods") is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 2 Buda Way, Kemps Creek, NSW 2178; Toll Free: 1800 224 070; Email: technicalservices@ ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a "consumer" under the Australian Consumer Law and to that extent you need to be aware that: "Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure"

DISCLAIMER

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