ARDEX CE 902

Ultra Flow PT Grout Additive

Ultra-fluidity

Rapid strength gain

No plastic shrinkage

Extended working time – allows long distance pumping

No formation of hydrogen gas

Ideal for grouting of stressed cables, bars and anchorages

ARDEX-QUICSEAL SINGAPORE PTE. LTD.
26 Tuas Ave 4 Singapore 639376
Telephone: +65 6861 7700
Fax: +65 6741 4666
Email: sales@ardex-quicseal.com
Website: www.ardex-quicseal.com

ARDEX CE 902

Ultra Flow PT Grout Additive

DESCRIPTION
ARDEX CE 902 Ultra Flow PT Grout Additive is a blend of unique plasticizing and expansion agents when mixed with Ordinary Portland Cement and water forms a structural grout for grouting of post-tensioning ducts and other grouting applications. It is formulated using a blend of cement and special chemical additives to meet stringent requirements.

The use of unique blend of additives in ARDEX CE 902 stabilizes the cement particles and allows the grout to be pumped long distances without segregation.

RECOMMENDED USES
- Grouting of post tensioning cable ducts horizontally and vertically
- Grouting of small openings over long distance
- Soil and rock grouting
- High flow grouting application

ADVANTAGES
- High bonding strength to tendons
- Ultra-fluidity
- Full encapsulation of tendons and wire strands
- Chloride free
- No generation of hydrogen gas
- No bleeding and sedimentation of cement particles
- Low permeability
- Corrosion protection

PREPARATION
Check to ensure the pump lines and grout lines are free from blockages by flushing out with potable water. The ducts 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
The grout can be mixed to flowable or fluid consistencies, depending on the job application. Each 10kg bag of ARDEX CE 902 will require approximately 200kg of Portland Cement and 65.1 – 73.5L of clean potable water. Pre-dampen the inside of the clean mixer and remove any excess water. Measure approximately 90% of the required water into a high shear mixer and slowly add 50kg Portland cement while mixing. Mix for 30 seconds, followed by ARDEX CE 902 with the remaining cement. 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 73.5 litres of water per 10 kg of ARDEX CE 902. It is important to pump the grout in a steady flow while the grout is agitated continuously to avoid gelling.

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

APPLICATION
Connect the grout lines to the duct inlet tubes and commence pumping until the grout flows out from the adjacent tube. Lock the inlet tube to prevent further outflow of the grout and disconnect pump pressure line and proceed to the next inlet tube.

PAY ATTENTION TO THE FOLLOWING:
1. Do not over-water. This can lead to segregation, shrinkage and strength reduction.
2. Store bags and water reservoir for mixing in a shaded or conditioned space. Cool water and powder can greatly extend the working time in hot conditions.
3. Keep unrestrained area to the minimum, the grout performs best when fully restrained.

PACKAGING
ARDEX CE 902 is packed in polylined paper sacks – net weight 10kg

STORAGE AND SHELF LIFE
ARDEX CE 902 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.

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

SAFETY PRECAUTIONS
ARDEX CE 902 should not come into contact with the skin and eyes or to be swallowed. Ensure adequate ventilation and avoid inhalation of vapors. Wear suitable gloves, goggles and other protective clothing.

ARDEX CE 902

Ultra Flow PT Grout Additive

TECHNICAL DATA

Mixing Ratio	10 kg: 200 kg Ordinary Portland Cement
Water Consumption	65.1 – 73.5 L per 210 kg mix
Coverage	10 kg of powder yields 128 L of grout @ 31% water 136 L of grout @ 33.5% water 141 L of grout @ 35% water 1m^3 of grout requires 7 – 8 bags of powder @ 33.5% water

Characteristics	Test Method	Test Results
Sieve Test	BS EN 445 : 2007	No lumps
Compressive Strength 1 day 7 days 28 days	BS EN 12190 : 1999	 > 35 Mpa > 70 Mpa > 90 Mpa
Fluidity Test Initial Final @ 30 min	BS EN 445 : 2007	$t_0 \leq 25$s $t_{30} \leq 25$s and $1.2t_0 \geq t_{30} \geq 0.8$
Wick Induced Test Volume Change Bleeding	BS EN 445 : 2007	 0 to + 0.3% < 0.3%
Chloride Content	BS EN 1015-17 : 2000	0.02%
Sedimentation Test Density variation	Inhouse Testing	< 0.6%
Fresh Density	BS EN 1015-17-2000	2000 ± 100kg/m^3
Setting Time	BS EN 445 : 2007	Initial Set > 180 min Final Set < 480 min

Technical data according to ARDEX Quality Standards. All data based on a partial, in-lab mix at 23±2°C and RH 55±10%, water powder ratio 0.335 using Engro Cem 1

The use of barrier creams can provide additional skin protection. When working in confined areas suitable respiratory equipment must be used. In case of contact with skin, rinse with plenty of clean water then wash with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water, and then seek medical attention without delay. If swallowed, seek medical attention straight away, do not induce vomiting. The Safety Datasheet (SDS) is available at www.ardex-quicseal.com

DISCLAIMER

The technical datasheets are based on the latest information and given in good faith and represent the best of our knowledge and experience at the time of printing. They are primarily offered for user's consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products. It is also the responsibility of the user to ensure that the products are used and handled correctly and in accordance with any applicable standards, the product instructions and recommendations and only for the uses they are intended. As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program.

ARDEX CE 902

Ultra Flow PT Grout Additive

Offices:

Malaysia:
ARDEX QUICSEAL MALAYSIA SDN. BHD.
72-2, Jalan Puteri 2/2 Bandar Puteri 47100,
Puchong, Selangor Darul Ehsan
Malaysia
Phone: +603 8051 0311
Email: sales.malaysia@ardex-quicseal.com

Thailand:
ARDEX (THAILAND) CO., LTD
969 2nd Floor Moo, 13, Soi 45, Bangna-Trad Road
Bangkaew, Bangplee, Samutprakarn 10540
Thailand
Tel: +66 2316 3069 Fax: +66 2316 3075
Email: sales@ardex.co.th

Vietnam:
Mobile: +84 901 351 308
Email: sales@ardex-quicseal.com

Hong Kong:
ARDEX SCORETECH LIMITED
1101 New Mandarine Plaza Tower B
14 Science Museum Road, TSTE
Telephone: +852 2529 6325 / +852 2165 0900
Email: sales@ardexscoretech.com

October 2024 T