

Hychem® FA35

Post Tension Grout

Description

Hychem FA35 Ultra Flow PT Grout is a high strength, aggregate-free cement grout. When mixed with water it forms a structural grout for grouting of post-tensioning ducts and other grouting applications. It is formulated using a blend of Portland cement and special chemical additives to meet stringent requirements.

The use of unique blend of additives in Hychem FA35 stabilizes the cement particles and allows the grout to pump long distances without segregation.

Uses

- Soil and rock grouting
- High flow grouting application
- Grouting of small openings over long distance
- Grouting of post tensioning cable ducts horizontally and vertically
- Ideal for grouting of stressed cables, bars and anchorages
- Corrosion protection

Features & Benefits

- Ultra-fluidity
- Chloride free
- Low permeability
- Extended working time – allows long distance pumping
- No generation of hydrogen gas
- High bonding strength to tendons
- Full encapsulation of tendons and wire strands
- No bleeding and sedimentation of cement particles

Technical Properties

Technical Data	
MIXING RATIO	COVERAGE
6.6L - 7.2L Clean water per 20kg bag.	Hychem FA35 20kg yields: <ul style="list-style-type: none"> • 12.2L of grout @ 30% water • 12.8L of grout @ 33% water • 13.4L of grout @ 35% water

All data is based on a partial, in-lab mix at 23±2°C and RH 55±10%, water powder ratio 0.33 using Boral SL Cement.			
CHARACTERISTIC	TEST METHOD	RESULTS	
Sieve Test	BS EN 445 : 2007	No lumps	
Compressive Strength	BS EN 12190 : 1999	1 Day	> 30 MPa
		7 Days	> 70 MPa
		28 Days	> 90 MPa
Fluidity Test	BS EN 445 : 2007	t0 ≤ 25s	
Initial		t30 ≤ 25s and	
Final @ 30 minutes		1.2t0 ≥ t30 ≥ 0.8	
Wick Induced Test	BS EN 445 : 2007	Volume Change	0 to + 0.3%
		Bleeding	< 0.3%
Chloride Content	BS EN 1015-17 : 2000	0.02%	
Fresh Density	BS EN 1015-17-2000	2000 ± 100kg/m3	



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Application Guidelines

SUBSTRATE 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

Mix only the amount of material that can be placed within 60 minutes. The grout can be mixed to flow-able or fluid consistencies, depending on the job application. Each 20kg bag of Hychem FA35 will require approximately 6.6L – 7.2L 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 add slowly the entire contents of the bag while mixing. Mix for approximately 3 – 4 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 7.2L of water per 20kg. It is important to pump the grout in a steady flow while the grout is agitated continuously to avoid gelling.

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.

PACKAGING

20kg Bag.

CLEAN UP

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

SHELF LIFE & STORAGE

Hychem FA35 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.

LIMITATIONS

- Do not over-water. This can lead to segregation, shrinkage and strength reduction.
- Keep unrestrained area to the minimum, the grout performs best when fully restrained.
- 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.

Warranties and Disclaimers

Hychem warrants that this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper use and application of the product by the applicator. Hychem has no role in the application of the finished polymer other than to manufacture and supply its components. It is vital that the person applying this product understands the product and is fully trained, experienced and competent in the use of epoxy grouting products. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Hychem and executed under seal by a company officer.

Field Support

Field support where provided, does not constitute supervisory responsibility. Suggestions made by HYCHEM either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they and not HYCHEM are responsible for carrying out procedures appropriate to a specific application.

Customer Responsibility

The technical information and application advice given in this publication is based on the best information available at the time of print. As the information herein is of a general nature, no assumption can be made as to the suitability of the product for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, his representative or the contractor is responsible for checking the suitability of products for their intended use.

