



NS650

POST-TENSIONING GROUT

PRODUCT DESCRIPTION

OPTIMIX NS650 POST-TENSIONING GROUT is a premium quality premixed shrinkage compensated, non-bleeding, cementitious grout. A free flowing grouting material with controlled chemical reactions that compensate for shrinkage in both plastic and hardened states. Specially formulated to provide high early and ultimate strength with superior flow properties for filling cable and tendon ducts. Remarkable extended working life and consistent flow retention for 1 to 2 hours even at high ambient temperatures facilitating grouting over long distance.

TYPICAL USAGE

- Suitable for grouting stressed cables, bars, and anchorages.
- For grouting pre-tensioning or post-tensioning cables where complete encapsulation for corrosion protection is required.
- Can be used for pumping through small opening over long distance as well as grouting cable or rod anchorages.

FEATURES AND BENEFITS

- Consistent quality
- Easy to use
- Non-shrink
- Extremely high flow
- High early and ultimate strength
- Non-bleeding
- Extended working life
- Pressure pumpable



TECHNICAL DATA

Product Characteristics	OPTIMIX NS650
Compressive Strength at 1 days	> 30 MPa
Compressive Strength at 7 days	> 50 MPa
Compressive Strength at 28 days	> 70 MPa
Flow by cone method (0 minutes after mixing)	19 seconds
Flow by cone method (120 minutes after mixing)	25 seconds
Bleeding	None
Volume change	0%
Setting Time	12 hours
Typical Mixing Water	6.75 – 7.25 litres
Wet Density	2100 kg/m ³
Coverage	1.64 kg/mm/m ²
Packaging	25 kg per bag
Shelf Life	6 months

Note: The above are typical laboratory test results and can vary slightly depending on the ambient and substrate conditions during application.

TESTING METHODS

Compressive Strength	EN196-1
Flow Test	BS EN 445 Cl. 4.3.1
Wick Induced Test (Bleeding and Volume change)	BS EN 445 Cl. 4.5
Setting Time	BS EN 196 : Part 3

Note: The tests were performed according to the national standard or in-house modifications of the corresponding testing procedure.

SURFACE PREPARATION

For grouting cables the duct shall be purged using oil free compressed air to remove water, debris and foreign materials. The vents shall be checked and the duct shall be pressure tested as appropriate with air. All identified leaks shall be made good before grouting can commence.

MIXING

Mix one bag of **OPTIMIX NS650** dry powder with 6.75 - 7.25L potable water. Mechanical mixing with slow speed drill fitted with a suitable paddle is recommended. Mix the mixture for about 5 minutes or until a lump-free homogeneous mix is achieved.

APPLICATION

OPTIMIX NS650 can be placed using a grout pump or other established grouting procedures. When pumping large volumes, heavy-duty diaphragm pumps (or alternatively screw feed and piston pumps) are recommended. The grouting material shall be applied in a continual operation until the void is completely filled and shall be placed within 60 minutes of mixing to gain full benefit of the expansion process. The grout shall be injected from the first low point inlet. The placement shall continue using one-way flow grouting method. If the duct contains a high point, the adjacent downstream vent shall be closed first and the grout expelled at the high point until good grout consistency is present.

HEALTH AND SAFETY

OPTIMIX NS650 is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

STORAGE

Store in the original unopened bags on pallets with plastic wrapping under dry conditions. Store out of direct sunlight, clear of ground on pallets protected from rainfall. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.



OPTIMIX (HONG KONG) LIMITED

20/F, SUP Tower, 75-83 King's Road, North Point, Hong Kong

Main Line: (852) 2395 5388 Order Hotline: (852) 2802 6433 Fax: (852) 2802 6408

www.optimix.com.hk