TEKNODURE HS100 RAPID

Ultra-High Strength Rapid Set Grout

DESCRIPTION

TEKNODURE HS100 Rapid is an ultra-high early strength grout with high flow properties and a blend of minerals with specific mechanical and chemical properties, mixed with high-quality binders. It is a single component product which is mixed with water to produce a shrinkage compensating grout with plasticizing agents to produce a fluid grout at a low water content. It can be transferred easily and quickly with pneumatic transfer devices. The cured grout offers excellent resistance to the effects of freeze-thaw action due to its low water content it has low water absorption rates and is resistant to oil and sea water.

USES

TEKNODURE HS100 Rapid is typically used in critical applications, including bridge bearings, critical load base plates, wind turbine bases, crane rail tracks and other applications where a grout with extremely high mechanical properties is required. Teknodure HS1000 Rapid has high flow properties and is resistant to cement washout when in contact with water.

ADVANTAGES

- High early strength development
- Excellent flow characteristics.
- High pumpability of fresh mix
- Good resistance to dynamic load.

Property	Value
Compressive Strength @ 20°C (EN 12390-3)	10 MPa @ 8 Hours 55 MPa @ 1 Days 100 MPa @ 28 Days
Flexural Strength @ 20°C (EN1015-6)	14 MPa
Modulus of elasticity (EN 12390-13)	35 GPa
Density (EN 1015-6)	2,28 Kg/ M^3
Shrinkage (ASTM C157)	Class 0
Initial Set Time (EN 196-1)	Approx. 5 hours
Final Set Time (EN 196-1)	Approx. 6 hours
Pot life at 20°C	120 mins
Initial Flowability (ASTM C230)	320-380mm
Min Temp Application	4°C
Max Temp Application	30°C
Water / Powder Ratio	14%

PROCEDURE

Surface Preparation: Teknodure HS100 Rapid is designed for large scale applications where the placing method is via forced action combined mixer and concrete pump units. Formwork should be constructed around the area that is to be grouted. The form work should be created with sufficient head to ensure that the grout will flow beneath the unit that is being grouted without any voids. The substrate should be thoroughly saturated with water prior to the application of the grout. This will ensure that the freshly placed grout remains fluid and excessive water suction does not occur. However, it is important to ensure that no surplus water is remaining prior to placement of the grout.

www.premcrete.com | 02380 276166 | sales@premcrete.com
44 Macadam Way, West Portway, Andover, Hampshire, SP10 3XW

Mixing: TEKNODURE HS100 should be mixed with 3.5 litres of clean water. Importantly the water addition should not be altered as this will affect the performance and properties achieved. It is recommended that the appropriate amount of water is added to the mixer and the powder is then added slowly whilst continuously mixing. The grout should be mixed until a uniform consistency is achieved.

Application: Once the TEKNODURE HS100 Rapid has been mixed to a uniform consistency, pumping can then commence and should be continuous until the form has been filled. Exposed Teknodure HS100 Rapid should be cured in accordance with good concrete practise.

Curing: Exposed sections of TEKNODURE HS100 Rapid should be cured using PREMCRETE CUREAID 1000 in accordance with good concrete practice.

Equipment Cleaning: Clean tools and equipment immediately using clean water.

PACKAGING & COVERAGE

Pack Size: TEKNODURE HS100 Rapid is supplied as a 25Kg pack.

STORAGE & SHELF LIFE

TEKNODURE HS100 Rapid should be stored in clean dry conditions, at temperatures between 6°C and 30°C. When stored in unopened bags TEKNODURE HS100 Rapid will have a shelf life of 6 months.

HEALTH & SAFETY

See separate material safety datasheet.