TECHNICAL DATA SHEET

TEKNODURE HF

High-Flow Cementitious Grout



PREMCRETE

TEKNODURE HF



DESCRIPTION

TEKNODURE HF is a cementitious grout which is mixed with water to produce a fluid non-shrink grout. The grout has a very high compressive strength and once hardened gives excellent structural support. TEKNODURE HF is chloride-free ensuring it is suitable for use in contact with steel. The water addition rate may be reduced to produce a mortar consistency with excellent freeze-thaw stability and very low water absorption rates. TEKNODURE HF is suitable for application in thicknesses ranging from 10 mm to 100mm. TEKNODURE HF possesses excellent non-shrink properties making it suitable for a wide range of applications in critical conditions.

USES

TEKNODURE HF is designed as a non-shrink cementitious grout for use in applications where a high strength grout is required and where flow ability is critical. Uses include grouting beneath stanchion bases, pre-cast units, bridge bearing support and crane rails.

ADVANTAGES

- High compressive strength.
- Excellent flow properties.
- Can be mixed to varying consistencies.
- Suitable for pumping in large volumes.
- Complies with US Corps of Engineers Specification CRD-C 621.

TECHNICAL & PERFORMANCE PROPERTIES

Property	Test Method	Value
Compressive Strength	N/A	25 MPa @ 1 Day 45 MPa @ 7 Days 68 MPa @ 28 Days
Flexural Strength	N/A	2.5 MPa @ 1Day 10.9 MPa @ 28 Days
Density	N/A	2200 kg/m³
Setting Times @ 20°C	N/A	Initial: 200 mins Final: 350 mins
Water / Solid Ratio	N/A	0.20
Expansion	N/A	0.01% @ 1 day

TEKNODURE HF

INSTALLATION PROCEDURE

Surface Preparation

Formwork should be constructed around the area that is to be grouted. The form work should be created with a head to ensure that the grout will flow beneath the unit that is being grouted without any voids. Large base plates may require vent holes to be drilled at appropriate intervals to prevent any trapped air which would result in voids forming beneath the base plate.
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.

Mixing

Teknodure HF should be mixed with a maximum of 5ltrs of clean water per 25kg bag. The water should be added to a suitable mixing vessel before slowly adding the TEKNODURE HF powder to the water whilst continually mixing with a suitable paddle mixer. Care should be taken to ensure that the paddle mixer is set to a slow speed to prevent the grout from being mixed too fast which may result in loss of fluidity. The grout should be mixed until a uniform consistency is achieved. TEKNODURE HF may be mixed with a 6mm round aggregate to bulk out the grout for use in applications thicker than 100mm.

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Application

TEKNODURE HF should be placed within 15 mins of mixing. Continuous placement to a pre-saturated substrate is important pouring from just one side of the form work, to prevent any air entrapment occurring.

Cold Weather Application:
When the air or contact surface temperature is 5°C or below and falling, warm water (30°C to 40°C) is recommended to accelerate strength development. Substrates should be free from ice. For temperatures between 0°C to 5°C, the use of frost blankets will assist the exothermic process.

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Curing

Exposed sections of TEKNODURE HF 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

25kg Pack

Yield

One 25kg pack yields 13.6 litres of mixed material, or approximately 25 litres when mixed at a 1:1 ratio with 6mm aggregate.



STORAGE & SHELF LIFE

TEKNODURE HF should be stored in dry clean conditions between 8°C and 30°C. When stored in unopened bags TEKNODURE HF will have a shelf life of 12 months.

HEALTH & SAFETY

See separate material safety datasheet..

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PREMCRETE