TECHNICAL DATA SHEET

TEKNODURE TS

Thick-Section Cementitious Grout



PREMCRETE

TEKNODURE TS



DESCRIPTION

TEKNODURE TS is a high-performance, shrinkage-compensated cementitious grout formulated with specially graded aggregates, low-alkali cementitious binders and performance-enhancing admixtures. It is designed for thick-section grouting applications where conventional construction grouts are unsuitable. When mixed with clean water, TEKNODURE TS produces a highly flowable, non-segregating grout capable of being placed in sections from 75 mm to 500 mm in a single application. Once cured, it develops high early and ultimate strength together with excellent dimensional stability and durability.

USES

TEKNODURE TS is designed for grouting beneath large structural base plates, bridge bearings, machine foundations, stanchion bases, crane rails, anchor bolt pockets and precast concrete units. It is also suitable for filling large voids and ducts associated with post-tensioned and pre-stressed concrete construction.

ADVANTAGES

- Thick-section placement from 75–500 mm
- High early and ultimate compressive strength
- Shrinkage compensated
- Free-flowing consistency
- Chloride free
- Low alkali formulation
- Suitable for hand or pump application
- Excellent adhesion and durability
- High compressive strength.
- Suitable for placement in thick sections.
- Complies with highways agency standard BD 27/86 for use on highway structures and bridges.

TEKNODURE GP

TECHNICAL & PERFORMANCE PROPERTIES

Property	Test Method	Value
Compressive Strength	N/A	16 MPa @ 1 Day 47 MPa @ 7 Days 65 MPa @ 28 Days
Density	N/A	1910kg/m^3
Flexural Strength	N/A	3 MPa @ 1 Day 8 MPa @ 7 Days 8.5 MPa @ 28 Days
Equivalent Na_20	N/A	< 2Kg/m^3
Flow Rate (DTP Flow Through @ 20°C)	N/A	9 seconds
Initial Set	N/A	4 hours
Final Set		6 hours
Water / Solid Ratio	N/A	10.16
Application Thickness	N/A	75–500 mm

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 the 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 TS should be mixed with maximum 4ltrs of clean water. The water should be added to a suitable mixing vessel before slowly adding the TEKNODURE TS 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.

Application

TEKNODURE TS can be pumped or poured and should be placed within 15 minutes 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.

Curing

Exposed sections of TEKNODURE TS should be cured using PREMCRETE CUREAID 1000 in accordance with good concrete practice.

Equipment Cleaning

Clean tools and equipment immediately using clean water.

TEKNODURE GP

INSTALLATION PROCEDURE

Surface Preparation
Formwork should be rigid, watertight and constructed to provide an adequate grout head. Large base plates should incorporate suitable vent holes where necessary to allow entrapped air to escape. Concrete substrates should be thoroughly pre-soaked and brought to a saturated surface-dry (SSD) condition before grouting. Remove all standing water immediately before placement.

Mixing
Add a maximum of 4 litres of clean water per 25kg bag. Place the measured water into a suitable mixing vessel before gradually adding the powder while mixing with a slow-speed paddle mixer or forced-action mixer. Continue mixing until a smooth, homogeneous and free-flowing consistency is achieved. Do not add extra water or retemper the grout.

Application
Place the grout immediately after mixing and within 15 minutes where practicable. TEKNODURE TS may be pumped or gravity poured. Pour continuously from one side only, maintaining an adequate grout head to ensure complete filling and minimise air entrapment. For gravity placement, a minimum grout head of approximately 50mm is recommended.
Cold weather application - When ambient or substrate temperatures are below 5°C, protect freshly placed grout using insulated blankets or other suitable protection. Warm mixing water may be used where appropriate to assist early strength development.

Curing
Protect exposed grout immediately after finishing using PREMCRETE CUREAID 1000 or another suitable curing compound. Protect from rapid drying, frost, direct sunlight and strong winds until adequate strength has developed.

Equipment Cleaning
Clean tools and equipment immediately after use with clean water. Hardened material can only be removed mechanically.

PACKAGING & COVERAGE
Pack Size
25 kg bag.
Coverage
Approximately 12 litres of mixed grout per 25kg bag.



STORAGE & SHELF LIFE
Store in unopened bags in clean, dry conditions between 8°C and 30°C.
Shelf life is up to 12 months when stored correctly.

HEALTH & SAFETY
See separate Material Safety Data Sheet.
Wear suitable gloves, eye protection and protective clothing during mixing and application.

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