PRODUCT DATA SHEET

webertec non shrink grout S

Extra high strength, free flow, cementitious precision non-shrink grout

PRODUCT

webertec non shrink grout S is a high strength, pumping suitable, free flow precision non-shrink cementitious grout. **webertec non shrink grout S** can be used for heavy duty support and bearing. It contains no chloride or other substances, which could aggravate corrosion of reinforcing steel or pre-stressing steel cables. **webertec non shrink grout S** can also be used for heavy duty anchoring. The product can be pumped when large volume is needed. It requires only the addition of water to produce an easily applied free flowing grout. It can also be applied as a trowellable or dry pack material.

Uses

- Free flow precision grouting
- Filling gaps of pre-cast and pre-stressed panels
- Heavy duty support beneath machine base plates, bridge bearings and crane rails
- Heavy duty anchoring including bolts, starter bars, tendons in drilled holes
- Fill in grout for hollow block walls
- Underpinning
- Concrete anchors, rail beds and machine foundation

Features and Benefits

- Formulated to comply with Hong Kong Standard, American Standard and British Standard
- Expansion system compensates for shrinkage and settlement whilst in the plastic state
- Excellent fluidity
- Can be dry-packed, rammed, trowelled, poured and pumped
- High early strength and long-term durability
- Fast setting : setting time less than 7 hours
- No metallic iron content to cause staining
- Chloride free : prevent rusting of the steel and anchor bolts
- Pre-mixed and ready-to-use : requires only addition of Water

TECHNICAL DATA

Colour	Grey
Component	Portland cement, non-reactive aggregate, graded sand and other chemical additives
Max. aggregate size	2.0 mm
Yield	Approx. 13.5 L/25 KG bag for 19% water demand Approx. 74 bags/m^3
Density	2.2 kg/L (dry)
Pot life	Approx. 30 minutes
thickness	10 – 150 mm
Coverage	Approx. 1.85 kg/m^2/mm

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PHYSICAL PROPERTIES

	Dry pack	Plastic	Fluid
Water demand (%)	10 – 11%	13 – 14%	18 – 19%
Water demand (L/25 kg bag)	2.5 – 2.8 L	3.3 – 3.5 L	4.5 – 4.8 L
Yield	12 L	12.5 L	13.5 L
Age	Compressive strength, N/mm² (BS 6319: Pt 2, HKHA MTS(2002/2004) Spec. Part D, Cl. 2.1.1)		
1 day	35	30	25
3 days	50	45	35
7 days	75	70	45
28 days	99	95	90
Expansion at 24 hours	ASTM C 827		> 1%
Flow of grout	ASTM C 939		< 35 second
Setting time	ASTM C 953		< 7 hours
Bleeding	ASTM C 940		No bleeding
Bond strength at 7 days	BS 6319 : Part 4, HKHA MTS(2002/2004) Spec. Part D, Cl. 2.1.1		1.5 N/mm^2
Flexural strength at 28 days	BS 6319 : Part 3		8.0 N/mm^2
Chloride content	BS 1881 : Part 124		<0.01%

Unless specified, all technical data are average values and refer to 28 days curing time.

Above physical data are taken on laboratory tests. In situ material performance may vary according to environmental & workmanship conditions beyond manufacturer control.

Complied Standards

American Standard : ASTM C 827 (Free expansion within 24 hours)
ASTM C 939 (Flow cone method)
ASTM C 953 (Setting time)
ASTM C 940 (Bleeding)

British Standard : BS 6319 : Pt 2 : 1983 (Compressive strength)
BS 6319 : Pt 3 : 1983 (Flexural strength)
BS 6319 : Pt 7 : 1984 (Bond strength)
BS 1881 : Pt 124 : 1988 (Chloride content)

Hong Kong Standard : HKHA : MTS

PROCEDURE

Substrate Preparations

The surface of substrate must be clean, sound and free from oil, grease, curing compounds or any loose materials.

Bolts and anchor holes must be clean and free from dust or loose materials.

It is essential to pre-soak the concrete substrate with water prior to application of **webertec non shrink grout S**. Excess water should be removed prior to grouting.

Mixing and Installation

Mix a bag of dry-mixed powder (25 KG) with appropriate amount of water (depending on the application mode) by using an electrical mixer. For flowable grout, approx. 18 – 19% (4.5 – 4.8 L) of water is needed for fluid mode. For trowelling grout, approx. 13 – 14% (3.3 – 3.5 L) of water is required for plastic mode, while approx. 10 – 11% (2.5 – 2.8 L) of water is required for dry pack mode.

To obtain the best expansion for dry pack mode and plastic mode, 3 – 5 minutes of mixing is enough. To obtain the best flow for fluid mode, 7 – 9 minutes of mixing is needed.

Apply **webertec non shrink grout S** within 30 minutes after mixing and under working condition above +5°C.

webertec non shrink grout S can be applied with a thickness of 10 – 150 mm in single application, please consult our technical department for any application thickness beyond 150mm.

Do not use mechanical vibrators to assist flowing, as this will cause segregation of product.

Machine mixing is recommended to achieve continuous mixing and application.

Please refer to our method statement for procedures in details.

Curing

Upon completion of grouting, the exposed area should be covered with wet hessian or plastic sheet to prevent excessive moisture loss.

STORAGE AND PACKING

webertec non shrink grout S is delivered in 25 kg bag. Storage life is 12 months if the product is kept in a dry place.

HEALTH AND SAFETY

Recommend to wear NIOSH approved or equivalent particulate face mask when mixing the material.
Material contains cement, which may produce an allergic effect.
Material may cause irritation to eyes and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical assistance. After contact with skin, wash immediately with plenty of soap and water.
Keep out of reach of children.
Please refer to Material Safety Data Sheet (MSDS) for health, safety and handling of the product.

CLEANING & DISPOSAL OF WASTE

Cured material can be removed mechanically, if uncured, material can be removed with water. Dispose of waste in accordance with legislation.