MultiGrout CB-S

Ideal for Anchoring Into Soil or Rock

www.multicretesystems.com

Description

MultiGrout CB-S is a sanded, cement based non-shrink grout containing silica fume (microsilica) and other carefully selected additives. MultiGrout CB-S gains strength quickly and resists water washout making it ideal for anchoring tendons, cables and bolts into soil or rock media.

Uses

- MultiGrout CB-S can be used for most grouted anchor requirements including:
- Earth tiebacks for excavation and slope stabilization.
- Rock bolts or soil anchors in tunnel support systems.
- Cable bolting
- Soil or rock tendons used for anchoring piles or foundation structures
- Infill of pipe piles

Advantages

- ***High early strength:*** MultiGrout CB-S has superior early strength gain compared to Type 30 grouts, allowing early tensioning of anchors. It has comparable strength gain to high alumina grouts, but does not experience strength regression.

- ***Resistance to water washout:*** MultiGrout CB-S has excellent cohesive properties. It resists washout or dilution by water and thus can be used in wet ground conditions and still retain its excellent physical properties.

- ***Reduced Grout Takes:*** MultiGrout CB-S has thixotropic properties. It tends to gel after placement or pumping. This gelling action prevents the loss of grouting porous or fractured geology.

- ***Excellent Pullent Resistance:*** MultiGrout CB-S exhibits excellent pullent resistance for cable bolts and rock bolts due to the increased friction component imparted by the sand.

Procedures

Mix MultiGrout CB-S to the consistency, required for placement. MultiGrout CB-S thixotropic properties make the grout appear thick and cohesive when in fact it is quite pumpable. Add water as per recommendations on the bag.

- Over watering will result in reduced compressive strengths and inferior physical properties.
- Introduce potable water into a high shear mixer and then add MultiGrout CB-S while operating at medium speed.
- Mix at high speed for a minimum of five minutes. Ten minutes in mortar style mixers.

Technical Data

The data outlined below is representative of typical values achievable under controlled laboratory conditions. Results obtained in the field may vary from those stated.

Typical Properties at Flowable Consistency
(Corps of Engineers CRD-C821 and ASTM Standard C1107 test procedures)

FLOW	22 seconds
EXPANSION, 5 VOLUME:	
At 3 and 14 days	Not greater than at 28 days
At 28 days	0.4 maximum (0.24 Typical)
SETTING TIME:	15 hours at 20 degrees C
COMPRESSIVE STRENGTH: Mpa (lb/in^2)	
At 24 hours	13.8 (2000)
At 48 hours	29.5 (4280)
At 7 days	45.7 (6630)
At 28 days	58.9 (8540)
APPROXIMATE YIELD:	
AT FLOWABLE CONSISTENCY	
Bags per m^3	55
Bags per yd^3	42
Liters/bag	18.4
Ft^3/bag	0.65

Limitations

Adhering to recommended water additions is very important. Exceeding the maximum recommended water content per sack will result in inferior physical properties.

Packaging

MultiGrout CB-S is packed in 30 kg (66 lb) polyethylene-lined bags. All MultiGrout CB-S packaged materials can be custo
m packaged to meet specific project requirements.

Safety Precautions

MultiGrout CB-S contains Portland cement and carefully selected additives. Normal safety wear such as dust mask and rubber gloves used to handle conventional cement based products should be worn. Material Safety Data Sheets (MSDS) are available on request.