ARACO GROUT 400 HS

Ultra High Strength, Dual Shrinkage Compensated, Cementitious Grout

Product Description

ARACO GROUT 400 HS is a one-component, dual shrinkage compensated, ultra high strength, cementitious grout. It is composed of a blend of hydraulic cement, graded fillers and special chemical additives.

Once mixed with water, **ARACO GROUT 400 HS** becomes a free-flowing precision grout for gap filling.

Uses

ARACO GROUT 400 HS can be used:

- Baseplates and soleplates for large machines subjected to moderate dynamic loads
- Crane rail soleplate
- Precast wall panels, beams, columns, and structural building members
- Grouting under tough conditions
- Voids filling up to 300 mm

Advantages

- Ultra high strength and low permeability
- Rapid strength gain facilitates efficient installation and operation of plant
- Excellent initial flow and flow retention
- Chloride free
- Suitable for pumping and pouring
- Excellent fatigue resistance

Application

ARACO GROUT 400 HS can be either be poured or pumped into position.

Pour **ARACO GROUT 400 HS** in a continuous manner and do not allow air pockets to develop. The pouring should take place within a maximum 20 min of the mixing.

Package: 25 Kg powder + 13 kg agg
Consumption: 20 kg/m2 per 10mm thickness

Surface Preparation

Areas to be repaired must be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means. Chipping and or whip sand blasting is preferred to get a sound, rough surface. Bolt holes or fixing pockets must be blown clean of any dirt or debris. Saturate the surface with water prior to application then allow surface to dry.

Mixing

For each bag of **ARACO GROUT 400 HS**, add 5 to 5.5 liters of water.

Mix the ingredients using a suitable electrical drill for 3-4 minutes or until a uniform lump free homogeneous mixture is obtained. Allow the grout to mature for 1 min prior to pouring.

Curing

ARACO GROUT 400 HS is a cemtitious material. It should be cured in a similar manner to concrete. Curing can be also conducted using a curing compound ARACO CURE W or by water. Refer to ARACO TDS for more info about ARACO CURE W.

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Product Data

Appearance	Grey powder
Fresh density	2.4 kg/Liter
Max grain size	3mm
Water /solid	0.22
Pot life	1.75hrs
Setting time	< 9hrs
Modulus of Elasticity	44 Gpa
Air Content	<3%
Applicable thickness	20 to 300 mm
Applicable Temp	From 1 to 30°C
Storage condition	Store in a dry area between 5°C and 35°C. Protect from direct sunlight
Shelf Life	Original sealed container has a shelf life of 6 months if stored in the right conditions.

Safety Instructions

The product may cause skin irritation. Wear gloves and goggles and apply barrier cream to your hands. In contact with eyes or mucous membrane. flush immediately with plenty of warm water and seek medical attention without delay.

Legal Notes

The information, recommendations, and application are based on ARACO current knowledge and experience of the products when properly stored, handled, and applied under normal conditions. ARACO products are guaranteed against defective materials and manufacture and sold subject to standard conditions. Users should always refer to the most recent technical data sheet for the product concerned, copies of which will be supplied on request.

Technical Data

Flexural Strength

Average strength at day 1	5.7 Mpa	
Average strength at day 7	11.7 Mpa	ASTM C 580
Average strength at day 28	13.9Mpa	

Compressive Strength

Average strength at 1 days	55.9 Mpa	
Average strength at 7 days	94.5 Mpa	ASTM C109:2011
Average strength at 28 days	114.7Mpa	

Hardened Volume Change

Average strength at 1 days	0.25 %	
Average strength at 7 days	0.28%	ASTM C827:2010
Average strength at 28 days	0.28%	

Plastic Volume change percentage	1.22%	ASTM C1090

Tensile splitting Strength

Average Strength at 28 days	11.2 Mpa	BS EN 12390-6
Capillary Water absorption average	0.04 kg/m2.h^0.5	BS EN 13057
Drying Shrinkage average	0.2 mm/mm	BS EN 12617 4
Flow Consistency	130%	ASTM C1437:2008

Setting Time

Initial	3.5hrs	ASTM C191:2008
Final	4.5hrs	

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