HS Super Grout

Pump- able non-shrink cementitious grout

BERGER HOME SHIELD
Complete Waterproofing Solutions

Product Attributes

- **Easy to use** Ready to mix powder
- **Adjustment of consistency**
- **Good flow characteristics**
- **Rapid strength development**
- **High final strength**
- **Dual expansion property**
- **Resistant to impact & vibration**
- **Good dynamic load bearing capacity**
- **Chloride-free & Non-corrosive**
- **Shrinkage compensated**

Product Description

Home Shield Super Grout is a high precision, non-shrink packaged dry cement based flow-able grout with two-stage expanding properties and select aggregates. The product complies to ASTMC1107 / C1107M - 2008.

Recommended Use

- To grout bearings, machine foundations, column joints in precast construction
- To grout anchors
- To grout cavities, gaps and voids in concrete
- To grout selected confined areas in sunken waterproofing
- In making micro- concrete for high thickness repairing with 6 mm down aggregates

Toxicity

NO ADDED LEAD, MERCURY AND CHROMIUM

Non-toxic

Grading

2.36 mm down

Aspect

Grey powder

Bulk Density

Approx. 1.7 ± 0.1 Kg/L

Consumption

Approx. 2200 ± 100 Kg/M3
at W/P 0.16

E-Modulus

Approx. 37000 N/mm2 [Expected Value]

Layer Thickness

20 mm minimum / 100 mm maximum on single pour

Flexural Strength

> 7.0 N/mm2 on 28-days

Compressive Strength

At a Water : Powder ratio of 0.15-0.17 by weight, at greater than 300C ambient temperature, and relative humidity not higher than 70 %

1-day	: > 15 N/mm^2
3-day	: > 30 N/mm^2
7-day	: > 40 N/mm^2
28-day	: > 60 N/mm^2

Chemical Base

Cement, selected fillers, aggregates, special additives

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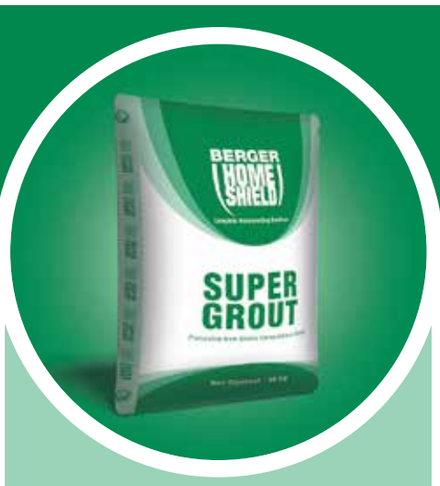

Packs

25 Kg 50 Kg

Pot Life

Approx. 30 minutes at 30°C

Storage

1 year from the date of production, if stored properly in dry condition, in undamaged and unopened original packaging.

Surface Preparation

- The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water jetting , breakers , blast cleaning, scrabbles etc.
- The concrete substrates should be pre-soaked with clean water continuously for 2-6 hours to ensure a saturated surface dry condition throughout the operation .
- Immediately before pouring remove all excess or standing water from within any formwork.

Substrate Quality

- Surfaces must be sound , clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants.
- The concrete 'pull off ' strength should be > 1.0 MPa
- For metallic surface contacts , it should be clean,free from oil or grease, rust, scale etc.

Directions for Application

Application Conditions:

Substrate Temperature : +5°C min./ +40°C max.

Ambient Temperature : +5°C min./ +40°C max.

Mixing:

For flowable consistency - Water : Powder ratio = 0.15 – 0.17 by weight

For Pourable consistency - Water : Powder ratio = 0.13 – 0.14 by weight

Mixing Time: 3 minute minimum

Mixing Method :

- Mix grout powder mechanically in the correct ratio with water using electric drill at low speed (max. 500 rpm) to avoid entraining too much air .
- Put around 80-90% of required water in the mixing drum, followed by Home Shield Super Grout and then add the balance water.
- Dependent on the desired consistency and flow properties , the mixing ratio can be adjusted.
- Preferably concrete tilting mixer should not be used .
- Do not mix grout which cannot be placed within the pot-life.

Application Method

- Pour grout immediately after mixing into the prepared openings.
- Ensure that air displaced by the grout can easily escape ; otherwise entrapped air will prevent full contact grouting . Wet porous substrates to saturated surface dry condition .
- When grouting base plates etc, ensure that a continuous and sufficient head pressure is maintained to keep the grout flowing .
- To make optimum use of the products expansion properties, apply the grout as early as possible (within max. 15 minutes).

Points to Note

- Use Home Shield Super Grout for grouting only , do not use grout for patch repair work etc.
- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing .
- Use chilled water for mixing in case of high ambient temperature.
- Use hot water for mixing in case of very low ambient temperature.
- Depending on requirements and site conditions the addition of dry , single size and clean aggregates may be mixed with grout.
- For large bedding holes and higher gaps duly washed coarse aggregates of size 6 mm down may be mixed with grout in the proportion of grout : aggregate = 2:1 by weight.
- Keep any visible, exposed grout surfaces as small as possible and protect from premature drying out by suitable measures (keep moist, cover with wet hessian etc.)

Cleaning of Tools

- Clean all tools and application equipment with water immediately after use .
- Hardened/cured material can only be mechanically removed.

Safety & Precautions

- Accidental splashes onto skin must be washed off with water and soap.
- If it comes in contact with eyes or mucous membrane , rinse with clean warm water and seek medical attention without delay .
- Do not dispose off intowater or soil , but it is advisable to do it as per local regulations .
- Non-toxic under the relevant local health & safety codes
- Non hazardous.

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BERGER PAINTS INDIA LIMITED

Berger House, 129 Park Street, Kolkata 700 017 | **CONSUMER RELATIONS MANAGER** Ph: 1800-103-6030
Fax: 91-33-2249-9729/9009 | SMS BERGER to 56767 | Email: consumerfeedback@bergerindia.com | www.bergerpaints.com