

TECHFLOW GROUT HES

CLASS C RAPID SETTING CEMENTITIOUS GROUT

13 April 2017

YOUR SMART ADVANTAGES

- Dual expansion compensates for shrinkage in the plastic and hardened state
- Rapid strength gain facilitates for rapid installation and operation of plant within matter of 2 hours
- Ready to use, pre-mixed, requires only the addition of water
- Can be mixed for stiff, plastic, flowable or fluid application
- No metallic iron content to cause staining
- Lower water/cement ratio reduces drying shrinkage, increases durability and reduces permeability

USES

Bostik Techflow Grout HES is a high performance, high early strength, rapid setting non-shrink (Class C) cementitious construction grout. Bostik Techflow Grout HES can be used for:

Cementitious grouting where particular application requires rapid setting
 Critical equipment base plates
 Heavy duty support beneath machine base plates
 Bridge bearing and crane rails
 Anchoring bolts, bars and fittings
 Underpinning
 Applications subject to continuous vibrations and dynamic loads

PRODUCT CHARACTERISTICS

Colour	Grey
Viscosity	Plastic /flowable
Composition	Powder
Pouring temperature	20°C
Product code	
20kg bag	30840123

TYPICAL PERFORMANCE DATA (approx.)

Specification	ASTM C191-08 ASTM C1107/C1107-11 ASTM C940-98a AS 1478.2-2005 AS/NZS 2350.11
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Application thickness	10 to 90mm
Initial set time*	
Plastic	20 minutes
Flowable	30 minutes
* Tested in accordance to ASTM C191-08	
Final set time*	
Plastic	30 minutes
Flowable	60 minutes
* Tested in accordance to ASTM C191-08	
Consistency*	
Plastic	2.2 to 2.5 litres with the addition of water
Flowable	2.5 to 2.8 litres with the addition of water
* Consistency is in accordance to ASTM C1107/C1107-11 & AS 1478.2-2005	
Expansion time*	
Start	< 10 minutes
Finish	< 20 minutes
* Tested in accordance to ASTM C940-98a (re-approved 2003)	
Coverage	
Plastic	10 to 10.5 litres/ 20kg
Flowable	10.5 to 11 litres/20kg
Fresh wet density	2,300 Kg per m ³ depending on actual consistency used
Bags per m ³	80 to 90 bags depending on consistency used

Compressive strength*

CONSISTENCY	WATER ADD. Litres	MPa			
		2 hours	4 hours	24 hours	28 days
Plastic	2.2-2.6	≥ 20	≥ 30	≥ 50	≥ 70
Flowable	2.5-2.8	≥ 15	≥ 25	≥ 40	≥ 50

* Tested in accordance to AS/NZS 2350.11

DIRECTIONS FOR USE

Read and understand the Safety Data Sheet before using this product. SDS can be acquired by visiting www.bostik.com.au or by scanning the relevant QR code on pack.

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APPLICATION INSTRUCTIONS

SUBSTRATE & SURFACE PREPARATION

The substrate must be clean, sound and free from oil, grease, curing compound or any loose materials. It must be mechanically abraded back to a sound concrete. Bolts or anchor holes must be clean and free from dust or loose material. This can be achieved by blowing clean the hole. Base plates must be cleared of all rust, oil or grease. It is essential to provide air pressure relief holes for venting.

Pre Soaking

It is essential to pre-soak the concrete substrate prior to application of Bostik Techflow Grout HES. Pre-soak the substrate with water for a minimum of 6 hours prior to grouting. Immediately before pouring, excess water should be removed. In the case of bolt/anchor holes, the holes must be blown out to ensure no traces of free water are present whilst grouting.

Formwork

Formwork must be constructed to facilitate rapid and continuous filling, whilst remaining leak proof and water tight. Foam rubber strips or suitable sealants underneath the formwork are recommended.

Unrestrained Surfaces

As Bostik Techflow Grout HES is an expanding grout, it is advisable not to have any unrestrained areas.

Low Temperature Working

At temperatures below 5°C the cure rate and strength development rate will be dramatically reduced. If early strength is required, it is advisable to use heated water and condition Bostik Techflow Grout HES to 25°C. Do not exceed this temperature.

High Temperature Working

At temperatures above 30°C, it is advisable to use water below 20°C when mixing grout. All materials must be kept cool and away from direct sunlight. If practical, the installation area should be shaded by erecting shade screens. If ambient temperatures are excessive, grouting should be scheduled for early morning or late afternoon.

Mixing

Bostik Techflow Grout HES requires between 2.2 - 2.8 litres of water per 20kg bag, depending on the desired consistency. For optimum results, mixing should be performed using a forced action high shear stirrer powered by a heavy duty electric mixing drill. Add pre-measured water to a clean mixing bucket. Gradually add powder into the water whilst continuously mixing the contents of the bucket. When the entire contents of the bags have been added to the water, mix for a further 2 - 5 minutes to achieve maximum results. Mix product must be smooth, lump free and homogenous consistency.

It is essential that the grouting operation is continuous hence ensure sufficient labour and mixing capacity is available.

Pouring

The desired ambient temperature for pouring is approximately 20°C. At this temperature it is essential the grout is placed within 25 minutes of mixing as this will ensure the expansion process is maximised. Ensure the entire area to be grouted is completely filled. We advise the following:

- Use a suitable head box to ensure continuous flow of grout
- Place/ pour grout from one side, minimizing the likelihood of trapped air
- The grout head must be maintained at all times so that a continuous grout front is achieved
- Do not use mechanical vibrators to assist in flow as this will cause segregation of aggregate
- Discard any material that shows signs of stiffening

Curing

On completion of grouting the exposed area should be covered with wet hessian, plastic sheeting or Bostik Bond 'N' Cure to prevent excessive moisture loss. At ambient temperature, formwork should be removed no sooner than 24 hours after completion of grouting. The covering should stay in place for a further 6 days. Lack of sufficient curing could result in plastic cracking and drying shrinkage on the surface.

LIMITATIONS

- Do not mix by hand
- Do not add additional water
- Do not use mechanical vibrators to assist in flow as this will cause segregation of aggregate.
- Discard any unused grout that has stiffened or hardened
- Do not retemper

CLEANING

Bostik Techflow Grout HES should be removed from tools and equipment with clean water immediately after use.

STORAGE AND SHELF LIFE

Must be stored in a cool, dry elevated place and protected from high humidity. Shelf life is 6 months in unopened bag.

DISPOSAL

Empty bags may be disposed via local landfill. Dispose of according to local authority regulations. Do not dispose of down drains or into local waterways.

VOC INFORMATION

1g/litre

SAFETY DIRECTIONS

Keep out of reach of children. Read label before use. Do not breathe dust, fume, gas, mist, vapours or spray. Wash hands, face and all exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective clothing, gloves, eye/face protection and suitable respirator.

CAUSES SKIN IRRITATION.

CAUSES SERIOUS EYE DAMAGE.

MAY CAUSE RESPIRATORY IRRITATION.

MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

FIRST AID

Swallowed: If swallowed, do NOT induce vomiting. Give a glass of water.

Skin: If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

Inhaled: Remove from contaminated area. Apply

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artificial respiration if not breathing.

Eyes: If in eyes, hold eyes open, flood with water for at least 15 minutes.

For emergency information contact the Poisons Information Centre, phone 131 126 or the Emergency Response Service, phone 1800 033 111.

BOSTIK HOTLINE

Smart help 1800 898 551



This datasheet is for the general help of users. It is provided in good faith. The data is current and accurate to the best of our knowledge. Differing materials, substrates, environments, site conditions, and product storage, handling and application may affect results. Users should carry out tests to decide the product's suitability for purpose. This data sheet and the properties of the product may change without notice. Users, suppliers and retailers should check that the data sheets they have are the latest. To the maximum extent permitted by law, Bostik disclaims all warranties in relation to manufacture and use of the product. Bostik is not liable for representations made by users, suppliers or retailers about the product. Bostik is not liable for any loss or damage resulting from incorrect, careless, or negligent use or storage of the product, including use of out of date product. Any liability arising from use of the product is limited to the replacement or purchase price of the product. Bostik does not exclude rights and remedies that cannot be excluded by legislation, for example under the Australian Consumer Law (ACL). Sale of the product by Bostik is subject to the Bostik Australia Proprietary Limited Conditions and Terms of Sale. For more information on Bostik, products, and conditions of use and sale visit www.bostik.com/au

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