



Technical Data Sheet

Techflow Grout HES

Class C Rapid Setting Cementitious Grout

Recently
updated
October 2013

DESCRIPTION

High performance, high strength, rapid setting non-shrink (Class C) cementitious grout.

APPLICATION

Application thickness 10mm-90mm

FEATURES

- ✓ 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

RECOMMENDED USES

- ✓ 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



APPLICATION INSTRUCTIONS

SUBSTRATE AND 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 substrate with water for a minimum of 6 hours prior to grouting. Immediately before pouring, the 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.



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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.

Consistency	Water Addition
	(Litres)
Plastic	2.2-2.5 Li
Flowable	2.5-2.8 Li

* Consistency is in accordance to ASTM C1107/C1107-11 and AS 1478.2-2005 Table 4.1.2.2

CAUTION

DO NOT MIX BY HAND

DO NOT ADD ADDITIONAL WATER

Discard any unused grout that has stiffened or hardened. **DO NOT RETEMPER.**

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.



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PROPERTIES

APPLICATION THICKNESS

10mm-90mm

SET TIME

Consistency	Initial Set	Final Set
Plastic	20 mins	30 mins
Flowable	30 mins	60 mins

* Tested in accordance to ASTM C191-08

TIME FOR EXPANSION

Start : < 10 mins
Finish : < 20 mins

* Tested in accordance to ASTM C940-98a (re-approved 2003)

COMPRESSIVE STRENGTH

Consistency	Water Addition (Litres)	MPa			
		2 hours	4 hours	1 day	28 days
Plastic	2.2-2.5 Li	20-25	25-30	40-50	60-70
Flowable	2.5-2.8 Li	15-20	20-25	30-40	50-60

* Tested in accordance to AS/NZS 2350.11

COVERAGE

(Litres per 20kg bag)

Consistency	Yield (Litres)
Plastic	10 - 10.5
Flowable	10.5 - 11

FRESH WET DENSITY

Approx 2100 Kg/m³ depending on actual consistency used

BAGS PER CUBIC METRE

85 - 90 bags depending on actual consistency used

PACK SIZE

20kg





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STORAGE & SHELF LIFE

Bostik Techflow Grout HES has a shelf life of approximately six (6) months in unopened bag. Must be stored in a cool, dry elevated place and protected from high humidity.

SAFETY PRECAUTIONS

SEE THE MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.

EMERGENCY INFORMATION: 1800 033 111 (ALL HOURS)

MSDS can be downloaded from www.bostik.com.au

CLEAN- UP

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

VOC – 1 g/Lt

voccertificates.australia@bostik.com

PRODUCT DETAILS

ITEM NO	ITEM NAME	SIZE	COLOUR
267767	TECHFLOW GROUT HES	20 KG	GREY





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BOSTIK PRODUCT GUARANTEE

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Quality endorsed ISO9001 (Thomastown site)
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