

# BLUSKY® FLOWGROUT 180

## Non-Shrink High Strength Ready To Use Cementitious Free Flow precision / Anchor Grout

### Description

**BLUSKY® FLOWGROUT180** is a Chloride free, cement based free flowing, very high ultimate strength, non-metallic, non-shrink grout. The material is based on cements, graded aggregates, some special polymers and additives which import controlled expansion of mortar and minimizes water demand, thus ensuring high compressive strength and long-term durability.

It complies with CRD-C621-83 of the Corps of Engineers (USA) specification, ASTM C827 and C1107.

### Indicative Characteristics

Appearance	Free flowing grey powder
Compressive Strength, N/mm <sup>2</sup> (Typical) at 27°C, as per IS 4031	W/P - 0.18
24 hrs.	> 30
3 days.	> 55
7 days	> 65
28 days	> 80
Free linear Expansion, ASTM C 827	0.2-2%
Coefficient of Thermal Expansion, per °C	11-12x10 <sup>-6</sup> (Similar to Concrete)
Fresh wet density, kg/m <sup>3</sup>	2250 - 2350
Tensile Strength, N/mm <sup>2</sup> , 28 days, 30°C	4.5 (Minimum)
Flexural Strength, N/mm <sup>2</sup> , 28 days, 30°C	12.5 (Minimum)

**Note: Compressive strength is determined by using 7cm cube specimen at laboratory-controlled condition, Water demand may vary depending upon site condition.**

### Domains of Application

Grouting of machine base plates, column bases, anchor bolts, bridge bearings. Facilitates early commissioning of equipment subjected to high vibration and requiring high early strength.

The information contained in this technical data sheet is given to the best of our knowledge and the results from extensive testing in order to remain as objective as possible. However, it cannot, in any case be considered as a warranty involving our liability in case of misuse or any different use of our products from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users. Consult the latest update of the technical data sheet on our website [WWW.BLUSKY.COM](http://WWW.BLUSKY.COM)

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### Method of Application

#### Surface Preparation

All surface laitance and unsound concrete must be chipped away so that a reasonable rough, but strong sound surface is provided. All surfaces must be free from oil, grease and dust, this particularly applies to the underside of bed plates, bolts, pipes or other materials which may have surface contact with the grout. After cleaning, saturate the concrete surfaces with clean water. Ensure that no free-standing water is present on surfaces of foundations or in bolt holes before applying **BLUSKY® FLOWGROUT180**.

#### Mixing

Use mechanical mortar mixers, preferably of the slow speed (250-350 rpm) paddle mixer or revolving drum type mixer. Hand mixing rarely achieves the desired result. Allow approx.5 minutes for mixing. Thorough mixing is essential for achieving maximum results. Add **BLUSKY® FLOWGROUT180** slowly into recommended amount of clean water in a mixer. Use as little water as is required for ease of placement.

Add EXCEM GP80 slowly into clean total needed water in Water/Powder ratio recommended for grout consistency required. Use as little water as is required for ease of placement.

For Flowable Mix - 5.250 - 5.750 ltr. Water to 25 kg. of **FLOWGROUT180**

For Plastic Mix - 3.275 - 4.150 ltr. Water to 25 kg. of **FLOWGROUT180**

For Dry-pack Mix - 3.150 - 3.875 ltr. Water to 25 kg. of **FLOWGROUT180**

Job placing conditions, including temperatures may require adjustments as may be essential for practical purposes. Small trial batches to ascertain the best working consistency for the operation are recommended.



07/01/2017

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### Application

In order to prevent air voids apply mixed **BLUSKY® FLOWGROUT180** from one side or corner only. **BLUSKY® FLOWGROUT180** should be placed within half an hour of mixing. Flowable mix may be used with low pressure cement grouting equipment or may be hand rodded into restrained sections. High points must be adequately vented to allow entrapped air to escape. Plastic mortar may be rodded into place. Consistency can range from thick cream to smooth plastic. For large volume of placement areas **BLUSKY® FLOWGROUT180** may be pumped with a heavy duty diaphragm pump, screw or any other standard pump. **BLUSKY® FLOWGROUT180** shall be used in the thickness range of 20mm to 100mm in single pour. For thickness of a section is more than 100mm, 50-70 % (by weight of **BLUSKY® FLOWGROUT180**) 6-10mm down washed coarse graded aggregate shall be used to reduce temperature built up in the hardened grout.

### Curing

After completion of concreteing work the open edges shall be cured by applying suitable Curing Compound or any other effective curing membrane manufactured by BLUSKY. Other curing methods, such as covering with plastic sheet, wet hessian cloth are also accepted.

### Advantages

**BLUSKY® FLOWGROUT180** grout is a consistent continually controlled mixture. Pre-mixing at the factory under strict quality control that requires no complicated jobsite mixing or skill, other than the addition of water.

Facilitates easy handling and storage **BLUSKY® FLOWGROUT180** Grout is protected in a vapour barrier bag that prevents exposure to the elements.

Eliminates shrinkage, has flowable consistency, good workability and excellent void filling action (self-leveling).

Ready to use and allows ample time for finishing work.

Can be poured, poked, pumped, dry-packed and rammed. If **BLUSKY® FLOWGROUT180** Grout is poured or vibrated into place there is no segregation.

Cement coloured and non-staining.

Gives increased yield about 2250-2350 Kg. for 1 m<sup>3</sup> of **BLUSKY® FLOWGROUT180** Grout.

Can be pumped through small nozzles over great distances.

Contains no harmful chemicals.

### Shelf Life & Storage

12 months from the date of manufacturing when stored in un-opened, original sealed and dry condition at a temperature range from +5°C to 40°C

### Consumption

1950-2075 Kg. of **BLUSKY® FLOWGROUT180**/m<sup>3</sup>

### Packing

25kg waterproof laminated HDPE bag

always add **BLUSKY® FLOWGROUT180** in water during mixing.

First take the total needed water in a mixer then add **BLUSKY® FLOWGROUT180** slowly in it with continuous mixing.

Maintain the test temperature at 27 ± 2°C, at low temperature 24 hours compressive strength will not be achieved due to delay in setting of cement.

### Safety

Wear hand gloves, safety shoes and safety goggles while using and handling the product.

In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet. The MSDS is available on [www.blusky.com](http://www.blusky.com)

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