

B 51

Industrial, high early strength, free flowing, epoxy grout

DESCRIPTION

B 51 is a 3 component, high precision, high early strength industrial epoxy grout to withstand static and dynamic loads. B 51 is specifically designed for situations where machines have to be commissioned quickly or maintenance shut down works. It has flowable consistency and can be used in gap widths of 10 – 80 mm.

USES

- Machine base plate grouting
- Industrial equipment subjected static and dynamic loads
- Grouting of equipment chemical spillage occurs and cementitious grouts are not suitable
- High speed turbines
- Grouting of machinery that require minimum downtime.
- Bridge bearings, crane tracks, light rail and permanent way in tunnels and over bridges
- High strength grouting & fixing of anchors, fasteners, starter bars, tie rods, barriers, railing posts, etc

FEATURES

- High early strength gain: allows for fast return to service during shutdowns
- High tensile, flexural and compressive strengths
- High flow: suitable for grouting operations of gap width of 10mm - 80mm
- Resistance to dynamic load
- High Vibration resistance
- Excellent adhesion to steel and concrete
- Withstands a wide range of chemicals and corrosion
- Non shrink
- Supplied in pre-measured packs for ease of mixing and consistency at site

PHYSICAL PROPERTIES

B 51	@ 27±1°C
Pot life	Approx. 50 minutes
Mixed Density	Approx. 2000 kg/m ³
Initial cure	24 hours
Full cure	7 days
Compressive strength ASTM C 579	
1 day	> 90 N/mm ²
3 days	> 95 N/mm ²
7 days	> 100 N/mm ²
28 days	> 105 N/mm ²
Bond strength ASTM D 4541	> 3 N/mm ²
Shore D hardness ASTM D 2240	> 90

Tensile Strength (7 days)

ASTM D 638 > 20 N/mm²

Flexural Strength

ASTM C 580 > 30 N/mm²

Exothermic peak

ASTM D 2471 Approx. 52°C

COVERAGE ESTIMATES

Pack Size	Yield
28 kg	Approx. 14 litres for 28 kg pack
Part A 4.660 kg	
Part B 1.430 kg	
Part C 21.910 kg	

APPLICATION INSTRUCTIONS

Note: Application possible up to 35°C but special precautions required above 30°C due to rapid strength development. It is recommended when working at temperatures above 35°C, that the following guidelines should be observed:

- Prior to use store the unmixed materials in a cool, preferably temperature controlled environment, avoiding exposure to direct sunlight or other heat sources.
- It is especially important to keep cool all surfaces that will come into direct contact with the material.

When both the materials and/or the substrates are too hot, the pot life will decrease dramatically

Substrate Preparation

The substrate must be hard, sound and free of dust, dirt and other loose material. The underside of the base plate should be free of rust, oil, grease or other contaminants that could hinder the bond. The minimum gap width of 10mm should be maintained between the base plate and the foundation. Ensure the surface is dry and no moisture is present before starting the grouting operation.

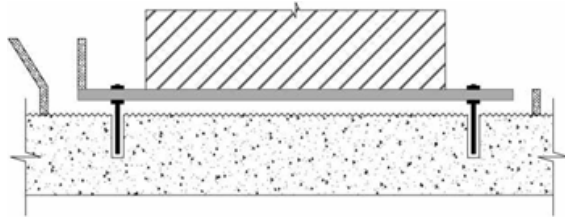
Formwork

Formwork fitted around the base plate should be rigid and water-tight to prevent grout loss. The top of the formwork should be a minimum 25mm above the bottom level of the base plate. On the pouring side (which should be the shortest distance along the base plate), the formwork should be minimum 150mm high to allow a head of grout to build up. The grout head must be achieved at all times during the grouting operation to eliminate air pockets. Ensure continuous grouting operation without stoppage.

Generally, the gap width between the base plate and the formwork is maintained at 100 - 150mm on the pouring side and 50mm on the opposite side. Whenever possible, gap between the base plate and formwork should be avoided at the shoulders as unrestrained grouts have a tendency to crack.

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Mixing

Part A & Part B should be thoroughly stirred before being mixed together. The entire contents of the Part A and B should be poured in to a larger mixing vessel to incorporate the Part C. Mix thoroughly for one minute using slow speed drill (400 - 600 rpm) and mixing paddle. Finally Part C is added and mixing is continued for further two minutes to create consistent homogenous mix. Mixing for too long may entrain air.

Placing of grout

Ensure that sufficient grout mix is prepared and ready for the work. Allow the mixed grout to stand for 5 minutes before placing. The bolt pockets must be first grouted before grouting between the base plate and substrate. Continuous grout flow is essential to prevent no air pockets are formed. Ensure that the grout reaches the other end of the formwork and overflows to release any trapped air.

CLEANING

B 51 can be removed from tools and equipment by using water immediately after use. Any hardened material will need to be removed mechanically.

STORAGE AND SHELF LIFE

B 51 must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of this product is 12 months from the date shown on the packaging.

PRECAUTIONS

During mixing and application the following precautions should be observed: Ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water.

Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

DISPOSAL/SPILLAGE

Spillage of the product should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations.

For further information please refer to the Material Safety Data Sheet.

CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

NOTE

The information supplied in this datasheet is based upon extensive experience and is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products. However, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.



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