

# **Techno Microfill 250**

Plasticised Free Flow Polymeric General Purpose Injection Grout

# **Product Description**

Techno Microfill 250 is a plasticised ready to use non-shrink general purpose free flow polymeric injection grout with in-built crystalline characterisitcs and it is supplied in Powder form.

# **Uses**

Ready to use plasticised injection grout achieving deeper penetration with significant improvement in mechanical properties combined with crystallization effect.

Recommended in applications such as bed grouting, construction joints in retaining walls, cold joints in rasps. Also, suitable for filling voids and honey combs inside concrete.

# **Advantages**

- Increased penetration in finer cracks and pore spaces inside the concrete
- Improved strength of the set grout helps in stabilising the grout
- Composition allows high strength development without the use of external polymeric additives
- Active chemicals react with moisture in fresh grout and with by-products of cement hydration to fill the pores and capillaries
- Gives grout high fluidity with low water/cement ratio thus making placement or injection of the grout easy
- Standard pressure grouting equipment can be used
- Durable and economic solution

# **Properties**

Chloride Content: Nil as per BS:5075

Bulk Density : 1.3gms/cc

Mixed Density : 2.0 gms/cc

Flow Characterstics @ 30 °C			
Material	Initial Flow	Flow after 30min	
Expansion grout additive	220mm	175mm	
Techno Microfill 250 (W/P 0.3 as per ASTM C939 with BS Cone)	280mm	225mm	

#### **Compressive Strength**

The plasticising action of Techno Microfill 250 allows reduction of water/cement ratios of cementitious grouts whilst maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.

### Compressive Strength

1day	7days
4.7Mpa	19Мра

#### **Setting Time**

Techno Microfill 250 does not significantly alter the setting times of all cement based grouts.

#### **Expansion Characteristics**

The controlled positive expansion in unset grouts incorporating Techno Microfill 250 overcomes plastic settlement when measured in accordance with ASTM C939 with BS Cone. An unrestrained expansion of 2-4% is typical.

## Time for expansion

15 minutes - 2 hours. Temperature above 20  $\,^{\circ}$ C may slightly reduce these times.

# **Specification Clause**

### Performance specification

All grouting (specify details and areas of application) must be carried out with plasticised free flow polymeric injection grout with in-built crystalline charasertics. Techno Microfill 250 must be iron-free and chloride-free and ready to use product with only addition of water at site.

Techno Microfill 250 grout shall provide an expansion of up 2-4% and minimum compressive strength of 15Mpa in 7days.

# **Application instructions**

#### Mixing

For best results a mechanically powered grout mixer must be used. For quantities upto 10kg, a slow speed drill fitted with a high shear paddle is suitable. Large quantities will require high volume drum mixer. It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity. The selected water content should be accurately measured into the mixer. Then the measured water shall be slowly added to the product. Mixing shall be be continued for 5 minutes, making sure that a smooth even consistency is obtained.

## **Application**

It shall be ensured that areas to be grouted are clean, sound, and then pre-wetted. The unrestrained surface area of the grout must be kept to a minimum. The grout shall be placed within 20 minutes of mixing to gain the full benefit of the expansion process. Usual placing or pumping procedures shall be adopted ensuring a continuous operation.

#### Cleaning

Techno Microfill 250 should be removed from tools and equipment with clean water immediately after use. Cured material should be removed mechanically or with La Conclean.

#### Limitations

Techno Microfill 250 is incompatible with High Alumina Cement.

### **Packaging**

Techno Microfill 250 is supplied in 10kgs & 20kgs pack.

Water	TechnoMicrofill 250	Approx. Yield
3 Ltrs	10Kg	5ltrs

Note: Part quantity of powder can be used with proportionate water content for smaller applications.

## **Shelf Life**

Techno Microfill 250 has a shelf life of 6 months if kept in a dry and moisture free store in its original packing. High temperature and humidity storage may reduce this period.

# **Health & Safety**

Techno Microfill 250 is of low hazard. Contact with the skin and eyes, or inhalation of dust should be avoided.

Suitable protective clothing, gloves, eye/face protection and dust mask should be worn. Any contact with skin, should be washed with clean water. Incase of contact with eyes, should be rinsed immediately with plenty of water and sought medical attention.

Important: Technokem products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, Technokem does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

For Complaints/Suggestions:
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