

# StrongGrout G80X

## Extra High Strength Shrinkage Compensated Grout for Special Grout Applications

### Description

**StrongGrout G80X** is a special cementitious non-shrink grout provides extra high compressive strength performance and flexural strength. It is a prepacked and ready to use product and only requires addition of water to produce flowable non shrink grout for special applications which requires very high strength material.

**StrongGrout G80X** is specially formulated from a blend of Portland Cement, very tight graded silica sands, expanding agent and chemical additives which impart controlled expansion in the plastic and hardening stages while using minimum water in the mix. The graded silica sand ensures consistent flow and workability. The low water requirement contributes fast strength gain and long-term durability.

### Uses

**StrongGrout G80X** is used for grout and repair of special structures and is recommended for grouting of base plates for heavy machines, railing of heavy vehicles and other special applications.

### Advantages

- High early strength and very high compressive strength.
- Low permeability to ensure durability for the hardened state.
- Fluid consistency allows self compaction.
- Non shrink, provide expansion at plastic stage and hardening stage
- Non chloride content.
- Low alkali content minimises risk of alkali-silica reaction.

### Standards Compliance

- ASTM C109
- ASTM C1202
- ASTM C940

### Physical Properties

Test Method for Fresh wet density:  
Water-powder ratio at 0.15 ( 28°C)

Test Method	Typical Result
Compressive Strength ASTM C-109	> 42 N/mm <sup>2</sup> @ 1 day > 65 N/mm <sup>2</sup> @ 7 days > 80 N/mm <sup>2</sup> @ 28 days
Flexural strength	> 10 N/mm <sup>2</sup> @ 28 days
Expansion ASTM C940	0.5 – 2.0 %
Time of Expansion	Start : 30 min Finish : 2 hours
Fresh wet density	<b>approx. 2,200 ± 0.05 kg/m<sup>3</sup></b>
Rapid Chloride Permeability	1.2 mm/ mm

### Application instructions Preparation

The unrestrained surface area of the repair must be kept to a minimum. The formwork should include drainage outlets for pre-soaking and, if beneath a soft, provision for air venting. Provision must also be made for suitable access points pour or pump the mixed micro-concrete into place. Substrate shall be free from any contaminated material, loose particle, oil, paint, grease etc. Where breaking out is not required, roughen the surface and remove any laitance by light scabbling or grit-blasting. Expose fully corroded steel in the repair area and remove all loose scale and corrosion deposits. Steel should be cleaned to a bright condition paying particular attention to the back of exposed steel bars. Grit-blasting is recommended for this process. Where corrosion has occurred due to the presence of chlorides, the steel should be high-pressure washed with the clean water immediately after grit-blasting to remove corrosion products form pits and imperfections within its surface.

### Substrate Priming

Substrates should be saturated by filling the prepared formwork with clean water. Prior to the application of **StrongGrout G80X** any excess water should be removed.

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### Mixing

**StrongGrout G80X** must be thoroughly mixed. A forced-action mixer is essential. Mixing in a suitably sized drum or pail using an approved spiral paddle in a slow speed (400/500 rpm) heavy-duty drill is suitable. Mixing of part bags is not recommended. It is essential that machine mixing capacity and labour availability is adequate to enable the placing operation to be carried out continuous grouting works. Measure 3.0 – 4.0 litres clean water and pour three-quarters into the drum. With the machine in operation, add one full 25 kg bag of **StrongGrout G80X** and mix for one minute before adding the rest of the water. Mix for a further 2 to 3 minutes until a smooth even consistency is obtained. The quantities mixed may be scaled up as required. When the drill and paddle miximethod is used, the complete 4.0 – 4.5 litres of water should be placed in the mixing drum. While the paddle rotation, add one full 25 kg bag of **StrongGrout G80X** and mix or 2 to 3 minutes until a smooth even consistency is achieved.

### Packing

**StrongGrout G80X** is packed in 25 kg bags.

### Yield

#### **StrongGrout G80X**

1 bag 25 kgs → yield : 13 litres

77 bags @ 25 kg → yield : 1 m<sup>3</sup>

(actual yields depending on water added)

### Limitation

**StrongGrout G80X** is not suitable to be used for unrestrained grouting.

### Cleaning

Use clean water to remove remaining grout from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

### Technical Support

Estrong offers high performance, high quality of products for both new and existing concrete surfaces. The company provides a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

### Storage

**StrongGrout G80X** should be stored on pallets in dry and shaded conditions where under such conditions, the product will have a shelf life of 12 months.

### Precaution

**StrongGrout G80X** should not be in contact with sensitive skin and eyes. Avoid inhalation of dust during mixing. Wear gloves, goggles and dust mask.

### Additional Information

Estrong manufactures and sells wide range of construction chemical products, such as waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available