



## TufGrout CN

### Expanding, Plasticizing Additive for Grouts, Mortars and Concrete

#### Uses

Used as an admixture for cementitious grouts where a reduced water/cement ratio and positive expansion is required. Applications include bed grouting, duct grouting, non-shrink grouting in filling and jointing.

#### Typical Applications & Advantages

- Cement plasticizing and water reducing action at low water cement ratios.
- At low water cement ratios, improved permeability and higher strengths are achieved.
- An expanding agent that increases the grout volume during the hydration process thereby eliminating shrinkage and settlement.
- Controlled rates of expansion. Ensures full contact between grouted surfaces.
- Suitable for use with all common cement types.
- Contains no chlorides or nitrates.
- Suitable for site-batching and ready mix applications.
- For on site production of shrinkage controlled cementitious grouts. Suitable for most construction applications.
- As an additive for site batched repair mortars to prevent drying shrinkage. As an additive for repair concrete where expansion is required to ensure full contact with the parent concrete.

#### Product Description

TufGrout CN is a blend of non-ferrous metallic expanding agents and polymer based water reducing agents. A catalyst is added which promotes controlled expansion.

#### Typical Properties

Appearance	:Sandy brown powder
Density	:1200 kg/m <sup>3</sup>

#### Technical Support

GIC provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

#### Recommended Usage

- **Neat cement grout:** Use 0.5% TufGrout CN by weight of cement. Maximum water content 45 litres per 100 kg of cement.
- **Cement/sand grout:** When using equal parts of sand and cement use 0.5% TufGrout CN by weight of cement. Maximum water 55 litres for 200 kg batch.
- **Plasticizing:** Use 0.5% TufGrout CN by weight of cement and reduce water contents by 10-15%. The same workability will be achieved with a 10% increase in compressive strength.

#### Instructions for Use

**Surface Preparation:** The areas to be grouted or repaired must be free from dust, loosely adhered material, plaster and cement droppings, grease oil and paints etc. The substrate must be thoroughly pre-wetted to account for excessive absorption into the parent concrete. The ideal condition is saturated, surface dry.

**Mixing;** Only mix as much grout as needs to be used immediately. Add the required quantity of water to a clean mixer first. Then add pre-weighed cement, TufGrout CN and finally sand (if used) allowing one minute mixing between each addition. Mix for approximately five minutes in total. Visually check for complete dispersion of the grout.

Small batches can be mixed with a bucket and slow speed drill and paddle. For large quantities and continuous grouting use a designated mechanical, forced action mixer.

**Curing;** Complete curing of cementitious products is critical. In most cases the volume of the repair mortar or grout is insignificant when compared to the parent concrete. This can mean rapid moisture loss into the dry substrate. Poor curing will result in shrinkage cracks and loss of strength. The use of a suitable curing compound is recommended. Water ponding may be used providing this is maintained for at least 7 days. The grout must not be allowed to dry for the first 7 days of curing.





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### Watch Points

- Trials should always be conducted to optimize the use of the expansion additive.
- Over-dosage of **TufGrout CN** will cause increased workability and retardation of setting times.
- Significant over-dosage will result in foaming, excessive expansion and delayed strength gain.
- The use of damp or wet sand will result in premature expansion and unpredictable results. Do not pre-batch the mix constituents.

### Packaging & Storage

**TufGrout CN** is supplied in 20 kg bags and it has a minimum shelf life of 12 months provided it is stored under cover, out of direct sunlight.

### Health & Safety Precautions

**TufGrout CN** does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting.

For further information refer to the Material Safety Data Sheet available for this product.

### Important note

GIC endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as GIC has no control over the conditions of use and the competence of any labor involved in the application are beyond our control.

**As all GIC technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.**

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