

# MAXGROUT<sup>®</sup> 100

Ready to Use, Cementitious Based Plasticized Expanding Grout Admixture



Maxgrout<sup>®</sup> 100, a plasticised expanding grout admixture is supplied as a powder. The material is a combination of a plasticising agent and a gas producing expansion medium. The plasticising agent allows the use of a reduced water/cement ratio with consequent increased strengths and durability. The expansive medium counteracts the natural settlement and plastic shrinkage of the grout and aids stability and cohesion.

## Uses

Maxgrout<sup>®</sup> 100 is an admixture for cementitious grouts where a reduced water/cement ratio and positive expansions are required. Applications include bed grouting, duct grouting, non-shrink infilling and jointing.

## Benefits

- Gaseous expansion system compensates for plastic shrinkage and settlement.
- Reduced water/cement ratio mixes in the grout mix ensures low permeability and long term durability in service.
- Gives grout high fluidity with low water/cement ratio, thus making placement or injection of the grout easy.
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Composition allows high early strength development in grouts, without the use of chlorides.

## Standards Compliance

Maxgrout<sup>®</sup> 100 is a suitable pressure grouting admixture complying with BS: 8110 Part 1-1985, Section 8.9.4.6.

## Technical Support

Thermax offers a comprehensive range of high performance, high quality concrete repair and construction products. In addition, Thermax offers technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the country.

## Properties

**Chloride Content:** Nil as per BS:5075

## Compressive Strength

The plasticizing action of Maxgrout<sup>®</sup> 100 allows reduction of the water cement ratios of cementitious grouts while maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.

## Expansion Characteristics

The controlled positive expansion in unset grouts incorporating Maxgrout<sup>®</sup> 100 overcomes plastic settlement when measured in accordance with ASTM C 827. An unrestrained expansion of up to 4% is typical.

## Time for Expansion

15 minutes - 2 hours  
Temperatures above 20°C may slightly reduce these times.

## Compatibility

Maxgrout<sup>®</sup> 100 is compatible with all types of portland cement.

Maxgrout<sup>®</sup> 100 may be used in mixes containing certain other Thermax admixtures ranges.

Thermax shall be contacted for further information.

## Specification Clauses

### Performance Specification

All grouting (specify details and areas of application) must be carried out with a cement based grout incorporating a plasticised, expanding powder admixture. The grout admixture must be iron-free and chloride-free and shall be added to the cement grout in the proportion of 225g per 50kg of cement. The grout admixture shall provide an expansion of up to 4% in the plastic grout, by means of a gaseous system. The grout admixture must be stored, handled and mixed strictly in accordance with the manufacturer's instructions.

### Supplier Specification

All grouting (specify details and areas of application) must be carried out using a cement based grout, incorporating Maxgrout<sup>®</sup> 100 manufactured by Thermax and applied strictly in accordance with

the manufacturer's technical datasheet.

## Application Instructions

### Instructions for Use

#### Mixing

For best results a mechanically powered grout mixer must be used. For quantities upto 50kg, a slow speed drill fitted with a high shear paddle is suitable. Large quantities will require a 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. The cement (and sand if required) shall be slowly added to Maxgrout<sup>®</sup> 100. Mixing shall 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.

#### Curing

On completion of the grouting operation, any exposed areas which are not to be cut back should be thoroughly cured by means of water application, MAXCURE<sup>®</sup> curing membrane or wet hessian.

#### Cleaning

Grouts mixed with Maxgrout<sup>®</sup> 100 should be removed from tools and equipment with clean water immediately after use. Cured material should be removed mechanically or with multipurpose cleaning agent.

#### Limitations

Maxgrout<sup>®</sup> 100 is incompatible with High Alumina Cement.

#### Storage

#### Shelf Life

Maxgrout<sup>®</sup> 100 has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations, the shelf life may be reduced.

#### Packing

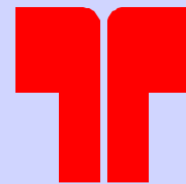
Maxgrout<sup>®</sup> 100 is supplied in 225 g packs.

#### Dosage

OPC	Concreting Sand	Water	Maxgrout <sup>®</sup> 100	Approx Yield
50kg	-	20-22ltr	225gm	36ltr
50kg	50kg	22-24ltr	225gm	57ltr

**Note:** For grout, mortar or concrete mixes with an aggregate/cement ratio more than 1, 4 x 225 g units of Maxgrout<sup>®</sup> 100 per 100 kg of cement, shall be used.

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