

MAXGROUT[®] E 10

High Strength, Epoxy Resin Based Injection Grout



Maxgrout[®] E10 is a solvent free epoxy resin grout designed for grouting of gap widths of 0.25 to 10 mm. It is an all liquid system consisting of base and hardener. The components are supplied in the correct mix proportions, designed for whole pack mixing on site.

Uses

Provides a free flowing grout, for use where physical properties and chemical resistance of the hardened grout are of utmost importance. It is suitable for a wide range of heavy duty applications including:

- Underplate grouting of structural elements with very narrow gap widths
- Base plate grouting in dynamic load situations such as turbines and other reciprocating machinery
- Heavy industrial applications in steelworks, refineries chemical plants and electroplating work
- Structural infill where very high strength is required
- Rail track applications, to support heavy cranes, or on transporter rails
- Injecting into voids, cracks and honeycombs to densify concrete

Benefits

- **Excellent Durability**- High compressive, flexural and tensile strengths ensure a long service life.
- **Cost Effective**- High early strength gain promotes minimum downtime and early commissioning of plant.
- **User Friendly**- Simple, full pack mixing to ensure that the performance characteristics are achieved.
- **Versatile**- Suitable for a wide range of loading situations including repetitive dynamic loads.
- **Excellent in Service Performance**- Non-shrink capability ensures full surface to surface contact.

Specifications

Where shown on the contract documents, the epoxy grout shall be Maxgrout[®] E10 supplied by Thermax. It shall provide good general chemical resistance, and a 7 day compressive strength of at least 80 N/m².

Properties (Meets the needs of ASTM C881 Type 1 & 4, Grade 1 Class B & C)

Pot Life	100-200 min at 30°C
Density	1.0-1.2 gm/cc
Tensile Strength	26 N/mm ² at 7 days
Flexural Strength	40-45 N/mm ² at 7 days
Compressive Strength	50 N/mm ² at 1 day 65 N/mm ² at 3 days 80 N/mm ² at 7 days
Mixed Viscosity	300-1000 cps

Instructions for Use

Preparation

Underplate Grouting

The unrestrained surface area of the grout must be kept to a minimum. Generally, the gap between the perimeter formwork and the plate edge should not exceed 75 mm on the pouring side and 25 mm on the opposite side. Formwork on the flank sides should be kept tight to the plate edge. Air pressure relief holds should be provided to allow venting of any isolated high spots.

Formwork

The formwork should be constructed to be leak proof as Maxgrout[®] E 10 is a free flow grout. This can be achieved by using foam rubber strip or mastic sealant beneath the constructed form work and between joints.

For free flow grout conditions, it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper should be used- please consult your local Thermax office more details.

Foundation Surfaces

This must be free from oil, grease, or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Bolt holes or fixing pockets must be blown clean of any dirt or debris.

Base Plate

If delay is likely before placing steel base plates, it is recommended that the underside and edges are coated with Maxgrout[®] PR to prevent rust formation and ensure bonding with the Maxgrout[®] E10 grout. All metal surfaces should be cleaned to a bright finish in accordance with Swedish Standard SA 2½

or equal. Maxgrout[®] PR can be applied directly onto newly cleaned steel surfaces even if they are damp.

Mixing

The entire contents of the hardener can should be poured into the base container and mixed for 2-3 minutes or until uniform colour is achieved. Once mixed, the material must be used within the specified pot life (see under Properties). After this time, unused material will have stiffened and should be discarded.

Note: Immediately prior to placement, all surfaces must be dry.

Placing

Ensure that the grout can be placed within its pot life. Continuous grout flow is essential. Sufficient grout must be available prior to starting and the time taken to pour a batch must be regulated to the time taken to prepare the next one. Pouring should be from one side of the void to eliminate air entrapment. The hydrostatic head must be maintained at all times so that a continuous grout front is achieved.

Cleaning

All tools and equipment should be cleaned immediately after use with Cleaning Solution.

Hot Weather Working

While the performance of Maxgrout[®] E10 at elevated temperatures is assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperatures above 35°C the following guidelines are used:

- Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- Keep mixing and placing equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.
- Try to eliminate application in the middle of the day, and certainly avoid application in direct sunlight.
- Ensure that there are sufficient operatives available to complete application within the material's pot life.

Limitations

Grouts should not be placed in any unrestrained situation, i.e. base plate plinths, etc. Failure to comply may lead to crack development in the grout.

Health and Safety Instructions

Some people are sensitive to epoxy resin so use gloves and a barrier cream. If contact with the resin occurs, it must be removed before it hardens with a resin removing cream followed by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of clean water and seek medical advice immediately.

Fire

Tecfloor[®] PR and Cleaning Solution are flammable.

Flash Points

Tecfloor[®] PR: 39°C

Cleaning solution: 33°C

Storage

When stored in warehouse conditions below 35°C, Maxgrout[®] E 10 will have a shelf life of 12 months.

Packing

Supply

Maxgrout[®] E 10: 1 litre pack

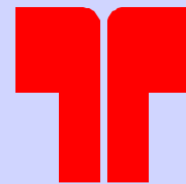
Tecfloor[®] PR: 1 and 4 litre packs

Cleaning Solution: 5 & 10 litre tins

Coverage

Tecfloor[®] PR: 5.0 to 6.5 m²/ litre

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Thermax Business Portfolio

Chemicals

Absorption Cooling

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Other Segments:

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation
- Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives

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