

MONOGROUT EP 3



High strength epoxy resin grout

DESCRIPTION

MONOGROUT EP3 is a solvent free, high flowable, highly-three component epoxy resin grout specially designed for heavy engineering grouting where dynamic loads are encountered.

APPLICATIONS

MONOGROUT EP 3 is ideally designed for use in the following applications:

- Heavy crane rails.
- Grouting areas where occasional chemical spillage may occur.
- Bearing plinths.
- Anchoring of steel fixings.
- Machine base plates.
- High speed turbines.

ADVANTAGES

Low heat generating grout for large gaps and high ambient temperatures.

- Exceptional high compressive, flexural and tensile strengths.
- Resistant to dynamic loading.
- Non-shrink and low creep characteristics under continuous loading.
- Exceptional bond to concrete and steel surfaces.
- Good chemical resistance.
- High ultimate and early strengths.
- Extremely dense.

Good adhesive to most of the surfaces

METHOD OF USE

SUBSTRATE PREPARATION

The Substrate should be sound, clean, and free from contamination. Surface laitance should be removed by scabbling or grit blasting.

- Steel surfaces should be grit blasted to remove all rust and scale.
- Concrete surfaces should be dry.

- Holes drilled for anchor bolts should be thoroughly cleaned from dust and loose debris using suitable brush or compressed air.

Technical Properties @ 35°C:

Compressive strength:	≥ 60 MPa @ 3 days
BS 6319, Part 2:	1983 ≥ 90 MPa @ 7 days
Flexural strength:	≥ 20 MPa @ 7 days
BS 6319, Part 3:1990	
Tensile strength:	≥ 10 MPa @ 7 days
BS 6319, Part 7:	1985
Recommended working ambient temperature:	15 - 50°C
Crack formation temperature @ 400 mm:	No cracks or bleeding
Gel time @ 50°C:	150 - 180 min
ASTM D2471	
Water absorption:	< 0.15%
ASTM C413	
Mixed density:	1.95 ± 0.05 g/cm
Working life:	3 - 6 hrs @ 25°C
2 - 4 hrs @ 35°C	
VOC:	< 10 g/ltr
ASTM D2369 (complies with LEED)	

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. The entire content of the Hardener pack should be added to the Base pack. Care should be taken to ensure that the bottom and the product sides are thoroughly scraped and used. Mix the two components for 2 minutes. The filler should be gradually added while mixing. Mixing should continue for 3 minutes or until a uniform consistency obtained.

Placing and Finishing

Under Base plate:

Enough material should be available to achieve a continuous fill and to complete the work. Pouring of the mixed grout should be started from one side only to avoid air entrapment.

To obtain maximum flow distance, a side shutter feed with 100 mm side height should be erected and used to build the required head. At 100 mm of head, a flow distance of 2100 mm can be achieved at gap thicknesses of 100 mm @ 25°C ambient temperatures.

Formwork:

As the mixed grout possesses high fluid characteristics, all formwork and shutters should be water tight. This can be achieved by sealing underneath the formwork and at the joints by using an appropriate mastic.

Notes:

If temperatures are less than 20°C, the cure rate will be slow, but eventually will go to completion if the temperatures remain above 15°C.

CLEANING

All tools should be cleaned immediately after finishing using a suitable epoxy thinner. Hardened materials should be cleaned mechanically.

PACKAGING

MONOGROUT EP 3 is available in 15kg packs (7.5 litre).

Thicknesses and Size Limitations

MONOGROUT EP 3 is suitable for grouting large gaps from 10 - 400 mm. For greater thicknesses, multiple layers can be applied after initial curing of the previous layer.

STORAGE

MONOGROUT EP 3 has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C.

If these conditions are exceeded, STARKE Technical Department should be contacted for advice.

HEALTH & SAFETY

MONOGROUT EP 3 is irritant to the eyes, skin and respiratory system. Wear suitable gloves and eye protection.

For further information refer to the Material Safety Data Sheet.

FIRE

MONOGROUT EP 3 is nonflammable.

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Surface treatments

Grouts and anchors.

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