

Flo-Grout EP330

High strength low exothermic pourable epoxy resin grout



DESCRIPTION

Flo-Grout EP330 is a three component, high strength, low exotherm and free flowing epoxy resin grout. Flo-Grout EP330 is suitable for grouting large gaps from 10 to 400 mm at high ambient temperatures of up to 55°C.

APPLICATIONS

Flo-Grout EP330 is ideally designed for use in the following applications:

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

ADVANTAGES

- » Low heat generating grout for large gaps and high ambient temperatures.
- » Resistant to dynamic loading.
- » Non-shrink and low creep characteristics under continuous loading.
- » Exceptional high compressive, flexural and tensile strengths.
- » Extremely dense.
- » Exceptional bond to concrete and steel surfaces.
- » Good chemical resistance.
- » High ultimate and early strengths.

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:

ASTM C579

@ 1 day ≥ 45 MPa @ 25°C
 ≥ 60 MPa @ 40°C

@ 3 days ≥ 60 MPa @ 25°C
 ≥ 75 MPa @ 40°C

@ 7 days ≥ 80 MPa @ 25°C
 ≥ 95 MPa @ 40°C

Flexural strength:

EN 13892-2

≥ 25 MPa @ 7 days

Tensile strength:

BS 6319-7

≥ 12 MPa @ 7 days

Recommended

working ambient

temperature:

15 to 55°C

Crack formation

temperature @ 400

mm:

No cracks or bleeding

Peak exothermic

temperature:

ASTM D2471

$63 \pm 2^\circ\text{C}$ @ 55°C

Peak exothermic time:

ASTM D2471

85 ± 5 min @ 55°C

Gel time:

ASTM D2471

180 ± 10 @ 55°C

Water absorption:

ASTM C413

$\leq 0.15\%$

Mixed density:

2.00 ± 0.05 g/cm³

Working life:

≈ 3 hr

Flow

(using 200 ml cone):

210 ± 10 mm

VOC:

ASTM D2369

≤ 10 g/ltr

(comply with LEED)





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MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with helix type 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.

Notes:

- » *Slow speed mixer (i.e. 300 rpm) should be only used.*
- » *If drill mixer with helix paddle is used, then the rotation of the paddle should be upward mixing to minimize the entrapment of air (i.e. the rotation of the mixer makes the blades move material from the bottom of the bucket to the top).*
- » *The mixing paddle should be always below the epoxy grout level, it should not be moved up and down to prevent air entraining.*

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

Flo-Grout EP330 is available in 15 kg packs (7.5 litre) and 30 kg packs (15 litre).

THICKNESSES AND SIZE LIMITATIONS

Flo-Grout EP 330 is suitable for grouting large gaps from 10 to 400 mm. For greater thicknesses, multiple layers can be applied after initial curing of the previous layer.

STORAGE

Flo-Grout EP330 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, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Flo-Grout EP330 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

Flo-Grout EP330 is nonflammable.

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