



EUCOFIX SL / NS -IN

HIGH STRENGTH, THIXOTROPIC, POLYESTER RESIN GROUT

DESCRIPTION

The two versions of Eucofix polyester resin anchor grout are all premeasured, two parts, filled polyester resin grouts. After hardening the grout produces anchorages of consistent reproducible values.

THE VERSIONS ARE

EUCOFIX SL-IN (Self Level)

EUCOFIX NS-IN(Non Sag grade)

EUCOFIX SL-IN is used where the difference between the hole diameter and bar diameter by not less than 4mm and not more than 25mm.

EUCOFIX NS-IN is used in overhead or horizontal holes where bar / hole relationship conforms to EUCOFIX polyester resin anchor grout SL.

The thixotropic nature of EUCOFIX polyester resin anchor grout NS reduces flow of grout out of the hole.

Purpose: A high strength, fast setting, fast curing grout of thixotropic consistency. Designed for the grouting and anchoring of steel bars and bolts into concrete, masonry and brickwork where speed of installation and early load bearing capability is required.

Permanent installation of reinforcement starter bars, foundation bolts, base plates, balustrading, barriers and safety fences, railway tracks, tie-back anchors, reinforcement dowelling abutments, ground anchors for towers, cranes, dock sills.

FEATURES/BENEFITS

- HighStrength
- Corrosion resistant
- Can be used in damp environment
- * Vibration resistant
- * Non expansive
- * Extremely durable
- Weather resistant
- Fast cure time
- Rapid Strength gain

TECHNICAL INFORMATION

Typical properties of mixed material

Pot life @ 27° C	30 mins
Temperature Range in application	0°C - 40°C
Temperature Range in Service	-20°C - 60° C
3 Hours Strength	> 30 N/mm ²
1 Day Strength	> 50 N/mm ²
Ultimate Strength	70 N/mm ²

Physical Properties

Mixed Density	
Eucofix SL	1.900 g/cc
Eucofix NS	2.900 g/cc

Properties determined at laboratory conditions.

PROPERTIES

Gel time Temp(°C)	Gel time (min)	Min time required before loading (hours)
20	80	7
30	40	3
40	15	1

Typical axial pull out strengths in 48N/mm² concrete using mild steel studding in holes drilled by rotary percussive equipment

Hole Diameter (mm)	Embedment Length (mm)	Failure load (tones)
12	75	3.2
14	100	5.3
16	125	7.1

Chemical resistance: The cured EUCOFIX is resistant to fresh and salt water, oils, petrol, grease and most acids, alkalis and solvents.

Anchor Design: The strength of the cured EUCOFIX permits the production of anchors capable of high loadings. The ultimate load will be governed by the following factors:

- Strength of substrate.
- Length of resin bond to bar.
- Dimensions and type of bar.
- Hole preparation and formation

PACKAGING

1 Kg pack and 5 Kg pack

SHELF LIFE & STORAGE

The product should be stored away from high temperature. 6 months shelf life when stored below 25°C in original unopened containers.

ANCHOR BOLT GROUTING COVERAGE

The cubic inches of grout required is equal to the total volume of the hole less the volume of the bolt. The volume of a hole (cylinder) is equal to 3.141 times the radius of the hole squared times the length of the hole.

Volume of a hole (Cylinder) = $\pi r^2 \times \text{Length}$ ($\pi \times \text{radius} \times \text{radius} \times \text{Length}$) and

Cubic inches of grout required = (Volume of the hole) – (Volume of the bolt)

(Example: if a bolt 1/2" in diameter (radius of 0.25 inches) and 5" long is surface flush anchored in a hole 3/4" in diameter (radius of 0.375 inches) and 6" long, the amount of grout required will be 1.67 cubic inches)

DIRECTIONS FOR USE

Preparation: Holes should be formed using rotary percussive drilling techniques. Diamond drilled holes should be scabbled or underreamed. Pre-cast holes should have roughened sides. All dust and drilling debris should be removed. Bars and bolts should be degreased and all rust removed.

Mixing: A complete pack of resin and catalysed filler should be mixed in one operation. Mixing may be carried out mechanically. When a smooth, even consistency is achieved the grout is ready for use and should be placed well within the gel time of the grout (See properties).

Packs have been designed to produce practical and economic volumes of grout. Do not attempt to mix partial pack components.

APPLICATION

EUCOFIX SL: The grout should be poured steadily into the prepared holes. The anchor bar is then pressed into the hole to the required depth. Slight agitation of the bar will assist in achieving a complete bond. The bar should then be left undisturbed in the required position until the resin is set.

EUCOFIX NS: The grout should be injected to the rear of the hole to avoid air entrapment. The thixotropic nature of Eucofix NS will prevent significant flow of resin out of the hole.

CLEAN-UP

All equipment should be cleaned, within the pot life of the grout with Euco solvents, xylene or acetone before the material hardens.

Flash point

Eucofix SL & NS-IN : 30°C

Fire

Eucofix polyester resin grout resin is flammable. Confined areas must be well ventilated and no naked flames allowed. Do not smoke during use.

PRECAUTIONS

Fire resistance and creep: At operating temperatures above 40°C, the creep of Eucofix polyester resin grout resin under load may become significant.

Resin anchors should not be used where structural load bearing performance has to be maintained in anchors subjected to fire conditions.

HEALTH AND SAFETY INSTRUCTIONS

- Confined areas must be well ventilated and no naked flames allowed.
- Contact with the skin should be avoided as certain sensitive skins may be affected by contact with the polyester resin. In such cases if contact with the resin occurs, the skin should be washed immediately with soap and water – not solvent.
- Gloves and barrier creams should be used when handling these products.
- Eye contamination must be immediately washed with plenty of water and medical treatment sought.

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