

K2 RESIGROUT

POLYESTER RESIN GROUTS



Used for high strength corrosion resistant anchoring of bolts and bars from 12 mm to 25 mm diameter into concrete, rock, masonry or brickwork where high speed of installation and early application of load is required. Permanent installation of reinforcement starter bars, foundation bolts, base plates, balustrade, barriers and safety fences, railway tracks, tie-back anchors, reinforcement dowelling abutments, ground anchors for towers, cranes, dock sills.

BENEFITS

- Gains Rapid strength
- Resistant to vibrations and corrosion
- Non expansive
- Ideal for under water placement

STANDARDS

K2 Resigrout conforms to BS 4551, BS5080, BS2782 standards

DESCRIPTION

K2 Resigrout polyester resin grout is a premeasured, two parts, filled polyester resin grouts. After hardening the grout produces anchorages of consistent reproducible values.

The versions are:

K2 Resigrout is used where the difference between the hole diameter and bar diameter is < 25mm. It is used in overhead or horizontal holes where bar / hole relationship conforms to the product properties.

DESIGN CRITERIA

The suitability of use of K2 Resigrout will depend upon ambient temperature and anchor conditions.

The high strength of the cured resin permits strong anchors to be created. The ultimate bond strength developed depends upon:

- Strength of host material.
- Length of resin bond to bar.
- Hole preparation and formation.
- Type and dimension of bar.

Table below shows the minimum depth required for installing Bar, and also to ensure the limit of shear stress within the concrete

TABLE

Characteristic Concrete Strength (N/mm ²):						
Permitted Concrete Shear Stress using Bar (N/mm ²):						
Bar Diameter (mm)		Yield (tones)	Hole Diameter	Minimum hole depth (mm)		
12	5.2	20	280	250	225	200
16	9.3	20	490	445	400	335
20	14.5	25	615	555	500	440
25	22.6	32	750	675	615	540

PROPERTIES

Gel Time Temp (°C)	Gel Time (min)	Minimum Time required before loading (Hours)
20	80	7
30	40	3
40	15	1

Compressive Strength

After the minimum time required before loading the grout typically attains a compressive strength in excess of 20N/mm² and an ultimate compressive strength of 70N/mm² in 7 days (50mm x 50mm x 50mm) when tested as per BS 6319 Part 2: 1983.

Chemical resistance

The cured resin is resistant to fresh and salt water, petrol, oils, grease and most acids, alkalis and solvents.

Parameters of anchor design

The high strength of the cured resin permits strong anchors to be created. Ultimate strength is determined by:

- Strength of host material
- Length of resin bond to bar
- Hole preparation and formation
- Type and dimension of bar

Hole preparation and formation

For best performance of K2 Resigrout rough sided, dust free holes are required. Uses of rotary percussive drills with air or water flushing are recommended. Diamond drilled holes should be under-reamed unless necessary safety factors are incorporated. Cast holes should preferably be inverse dovetail configuration. If parallel side holes are cast they should be rough to provide adequate keying.

Bar preparation

All bars should preferably be free from grease and flaky rust.

Mixing

The complete pack of resin and catalyzed filler should be mixed at once in one operation 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. The premeasured packs should be used in full and do not attempt to mix partial pack components.

INSTALLATION

K2 Resigrout polyester resin grout

The calculated volume of 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.

Cleaning

Mixing drums, pumps, etc. should be cleaned within the pot life of the grout.

PRECAUTIONS

Fire resistance and creep

At operating temperatures above 40°C, the creep of K2 Resigrout 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

Closed areas must be well ventilated and no naked flames allowed. Contact with the skin should be avoided as 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 and not solvents. Gloves and protective creams should be used when handling these products. Eye contamination must be immediately washed with plenty of water and medical treatment taken.

Fire

K2 Resigrout polyester resin grout resin is flammable. Closed areas must be well ventilated and no naked flames allowed. Refrain smoking during use.

Flash point

K2 Resigrout 29°C

Packaging

K2 Resigrout: 2 kg pack

STORAGE

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

TECHNICAL SUPPORT

The company provides a technical service supported by a team of specialist applicators in the industry

Important note :

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