

Resin anchoring capsules

Uses

For fixing of fully grouted steel rock bolts for strata control in tunnelling and mining to minimise fall of roof and as support system.

Advantages

- Controlled setting time.
- Permanent anchorage unaffected by vibration or by corrosive environment.
- Distributed anchorage - no localised high stresses, induced in bolted rock
- Reliability: laboratory tested pre packed material, minimise complications like prolonged setting time, limited load bearing ability, etc.
- Chemical & corrosion resistance - the cured polyester resin is resistant to fresh and salt water, oils, grease, petrol, salts etc.

Product Description

Sausage shaped resin capsules contain very high quality polyester resin and its catalyst in precisely measured quantities. The capsules are designed to be inserted into the drill holes for the purpose of mining or tunnelling.

The rotating bolt during insertion, forces resin and catalyst to come in contact and thus ensuring homogeneous mixing of the catalyst and the resin. The homogenous mix fills the annular space between the bolt and the bore hole and holds the bolt firmly and permanently.

Resin capsules are available in different dimensions suiting the exact requirement of users.

Field of application

The Lokfix resin anchoring capsule is designed to anchor rods (metal fastenings or rock bolts and glass fibre) to all types of concrete structures or base rock.

Product Data

Appearance / Colour - Yellowish grey paste

Packaging: Cylindrical sausage type capsules packed in a wooden box, custom to suit a requirement. Standard Sizes available are:

25mm dia x 250mm length

25mm dia x 300mm length

28mm dia x 300mm length

32mm dia x 300mm length

40mm dia x 300mm length

Storage Conditions /Shelf-Life

3 months from date of production if stored properly in dry condition in undamaged and unopened original sealed packaging. The product should be stored away from high temperature.

Chemical Base - Polyester resin

Mechanical / Physical Properties-

Compressive Strength - 50 N/mm² in one hour
60 N/mm² in one day

Tensile strength - 30 N/mm² in one hour

Effect of temperature - Setting time is inversely proportional to temperature at the time of application.

Setting Time - 1 - 3 min at 22°C

Note:All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Application Details

Application Procedure

- Bore a hole by drilling to correct depth & diameter as recommended.
- Clean the hole thoroughly with compressed air and/or water; insert appropriate number of capsules one by one to the end of the hole.
- Attach bolt to rotary machine by means of a spinning adapter & commence rotating/torque progressively, through the capsules until the end of the whole is reached. Detach drill from spinning adapter.(Recommended speed of the rotation 150-250 r.p.m.).
- Leave bolt undisturbed until resin has cured.
- Remove adapter.
- Tighten the rock bolts finally.

Notes on Application / Limitations

Capsules should not be inserted in the borehole in running water condition.

Lokfix Capsule

Consumption

Bore hole dia/ Bolt dia (mm)	Resin Required for the Anchorage (cc)	Capsules (mm dia x mm length)	Dimension of Resin in each Capsule (cc)	No. of Capsules required
32/25	205	25x300	145	2
32/25	205	25x250	120	2
35/25	310	28x300	180	2
38/25	425	32x300	240	2
48/25	870	40x300	370	3

The dimension of resin capsules with respect to bore hole diameter, size of the bolt and the resin required are based on minimum anchorage length of 650mm.

Health and Safety Information

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.

Fire

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

Additional information

The Fosroc range of associated products includes high strength cementitious grouts, epoxy grouts. Also available a range of products for use in construction; viz., admixtures, curing compounds, release agents, flooring systems and repair mortars. Separate datasheets are available on these products.

Important note :

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it.



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