

Cementitious anchor grout

Uses

For easy grouting in rock anchoring applications, particularly overhead roof bolting as encountered in mining and tunnelling.

Advantages

- Encapsulated - Controlled water : powder ratio.
 - Eliminates mixing equipment.
 - Minimal wastage of grout.
- Non-shrink - Expansion agents counteract shrinkage and ensure effective contact between bar and grout.
- Chloride free - Rapid strength development without the use of chlorides, ensures absence of corrosion.
- Thixotropic - No loss of grout even from overhead holes, due to the thixotropic nature of the grout.

Description

Capcem capsules are supplied as ready to use dry powder encapsulated in a water permeable skin. When required for use, the capsules are soaked in water which is absorbed through the skin, forming a thixotropic non-shrink grout. The capsules absorb the correct amount of water.

Setting Grades

Capcem capsules are available with two different grout setting times, the set time being a measure of the rate of the grout strength development.

The table below gives the minimum pull strength available per 200mm bond length on 16mm deformed rebar, 25°C, 1 hour after installation.

Capcem 1/4	4 tons
Capcem 1/2	2 tons

It must be noted that rock temperature will influence rate of set and strength gain; the higher the temperature, the faster the set and more rapid the strength gain.

Capcem 60 Capsules should only be used for rock temperatures up to 45°C, if rock temperature is above 45°C, consult Minova RSA technical department.



Application instructions

The Capcem capsules are removed from their packaging, soaked in clean water for 3 minutes, or longer if there are still signs of air release (bubbling) from the capsules. Only 1 bag of capsules should be soaked at a time, otherwise the grout may begin to set before installation.

Once the contents of the capsules are thoroughly wetted out the capsules are removed from the water, allowed to drain for 1 minute to remove excess water, and then inserted into the drilled hole with the aid of a charging stick or pneumatic gun until the hole has been filled. The bar is then wetted, inserted into the hole and pushed through the capsules to the back of the hole.

Packaging/Sizes

Capcem capsules are supplied in woven polypropylene carrying bags with an inner polythene liner. The following standard sizes are available :-

Capcem Capsule Sizes		
Diameter (mm)	Number per bag	Minimum Grout volume yield per capsule (ml)
25	30	125
28	28	150

Note Allowance should be made for wastage when estimating.

Storage/Shelf life

Capcem capsules have a shelf life of 12 months when stored unopened in the original bags in cool, dry conditions. Store out of direct sunlight to prevent degradation of packaging.

Precautions

Health and safety

Capcem capsules are non-toxic, but like all cements, are alkaline in nature. The use of gloves, goggles and a dust mask is recommended. Splashes should be removed from skin and eyes by washing with plenty of clean water. In the case of splashes in the eyes, medical attention should be sought immediately. Refer to Material Safety Data Sheet.

Technical Support

Minova RSA provides a technical advisory service supported by a team of specialists in the field. The service includes on site assistance and advice on evaluation trials and laboratory work.

Additional information

Capcem capsules can also be used in conjunction with Lokset resin capsules for full column grouting with a point anchor at the back of the hole for immediate support. Spinning in of the bolt is then required to mix the resin.

Minova RSA is a market leader specialising in the supply of high performance chemical products for the mining and tunnelling industries.

Minova RSA range of mining products includes anchoring and backfill systems, bagged cement products, high yield grouts, mine sealants, equipment and accessories, for which a brochure is available on request.

Minova RSA is an ISO 9001 accredited company.

Important note

Minova RSA 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 Minova RSA 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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Reg. No. 2001/027226/07, ISO 9001:2000 Company

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