

#### MINING

# Capcem<sup>™</sup> 50 Capsules

# **CEMENTITIOUS ANCHOR GROUT**

#### DESCRIPTION

Capcem<sup>™</sup> 50 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.

#### **APPLICATION AND USE**

Capcem<sup>™</sup> 50 Capsules can be used for easy grouting in rock anchoring applications, particularly overhead roof bolting as encountered in mining and tunnelling, where rock temperature is in the range 40°C to 60°C.

#### **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



## **TECHNICAL DATA**

#### **SETTING GRADES**

Capcem<sup>™</sup> 50 capsules are formulated for use in warmer rock temperatures.

The table below gives the minimum pull strength available per 200mm bond length on 16mm deformed rebar, at a curing temperature of 50°C, after 2 hours.

| Parameter     | Value | Unit   |
|---------------|-------|--------|
| Cure Time     | 2     | hours  |
| Pull Strength | 2     | tonnes |



## **APPLICATION METHOD**

The Capcem<sup>™</sup> 50 capsules are removed from their packaging and 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 loader 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.

## SAFETY INSTRUCTIONS AND LIMITATIONS

Capcem<sup>™</sup> 50 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.

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<sup>™</sup> 50 Capsules should only be used for rock temperatures exceeding 40°C. If rock temperature is below 40°C, alternative Capcem<sup>™</sup> grouting capsules are available. Consult our technical department for more information.

# PACKAGING AND TRANSPORTATION

Capcem<sup>™</sup> 50 capsules are supplied in woven polypropylene carrying bags with an inner polythene liner.

The following standard sizes for Capcem<sup>™</sup> 50 Capsule are available:

| Diameter<br>(mm) | Number<br>per bag | Minimum grout<br>volume yield<br>per capsule<br>(ml) | Minimum<br>grout volume<br>yield per bag<br>(l) |
|------------------|-------------------|--|---|
| 25               | 30                | 125  | 3.75  |
| 25               | 40                | 125  | 5.0   |

Note: Allowance should be made for wastage when estimating.

## **STORAGE AND SHELF LIFE**

Capcem<sup>™</sup> 50 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.

## DISPOSAL

Follow local regulations.

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# ADDITIONAL DOCUMENTATION

• MSDS of Capcem<sup>™</sup> 50 Capsules



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