



# CONSOL EXPANDER

Expanding Grout Admixture (For Mortar and Concrete)

## DESCRIPTION

**CONSOL EXPANDER** is a plasticized expanding grout admixture is supplied as a powder. This product is an expansion system which compensates for plastic shrinkage and settlement in cementitious grouts and concrete. It contains a water-reducing agent which increases the workability of the mix with a reduced water content. Applications include bed grouting, duct grouting, non-shrink infilling and jointing. By introducing micro bubbles into the mix, it produces wet volume expansion and increased fluidity without segregation.

## RECOMMENDED FOR

**CONSOL EXPANDER** is used to increased cohesion in cement grouts and is suitable for use in the grouting of:

- Pre-stressed cable ducts
- Rock and soil anchoring
- Bearing plates
- Pre-placed aggregates
- Tunnels lining
- Pre-cast concrete elements
- Tilt construction wall panels
- Crack injection.

## BENEFITS

- A cement plasticizing and water reducing agent to improve the free flowing properties of the grout at low water/cement ratios.
- An expanding agent that increases the volume of the grout or concrete which in turn eliminates shrinkage and settlement.
- Gives grout high fluidity with low water/cement ratio, thus making placement or injection of the grout easy.
- Reduced water/cement ratio mixes in the grout mix ensures low permeability and long term durability in service.

## TECHNICAL DATA

### Dosage

0.45% - 1 %

(note: when excess dosage have been used, please contact our technical support for achieve the best result)

### Typical Dosage

0.45% for pasta grouting

0.90% for concrete

### Packaging

180 gram Sachet (60 sachet/bag)  
20 Kg Pail

### Form

Powder

### Colour

Natural Grey

### Shelf Life

1 year if stored in unopened original container in dry, cool place.

### Remarks

To obtain optimum results (flowability, expansion, bleeding, etc.) the suitable w/c ratio and **CONSOL EXPANDER** cement ratio shall be determined through trial mixes.



## INSTRUCTION FOR USE

### Mixing

For pre-stressed concrete work, a mixing time of 3 minute with a w/c ratio up to 0.45. A mechanically powered grout mixer must be used. For quantities, up to 50 kg a slow speed drill fitted with a **CONSOL EXPANDER** mixing paddle is suitable. Larger quantities will require a high shear vane mixer. It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity. The selected water content should be accurately measured into the mixer. Slowly add the cement and **CONSOL EXPANDER**. Mix continuously for 5 minutes, making sure that a smooth even consistency is obtained.

### Application

Areas to be grouted should be prepared to ensure substrates are clean, sound, and then pre-wetted. The unrestrained surface area of the grout must kept to a minimum. Place the grout within 20 minutes of mixing to gain the full benefit of the expansion process. Adopt usual placing or pumping procedures ensuring a continuous operation.

## PRECAUTIONS

- Avoid contact with skin and eyes
- Wear protective gloves and eye protection during work
- If skin contact occurs, wash skin thoroughly
- If in eyes, hold eyes open, flood with warm water and seek medical attention without delay.