



# CEMGROUT UW

## UNDERWATER NON-SHRINK CEMENTITIOUS GROUT.



**20kg**

### APPLICATION:

Cemix® Cemgrout UW may be poured by tremie or pumped into place. The pump or tremie should fill from the bottom up displacing the water out the top. Compact as required. Immediately trowel finish as required.

### CURING:

Cure product above the waterline thoroughly after it has set by keeping it wet & covered for at least 3 days. Avoid product freezing for at least 3 days.

### DESCRIPTION:

Cemix® Cemgrout UW is an underwater, high strength, waterproof, structural cementitious grout. Characteristics include minimal washout, waterproof, high strength, shrinkage compensation, excellent chloride ion resistance & durability.

### TYPICAL APPLICATION/USES:

Cemix® Cemgrout UW may be used for:

- All underwater grouting applications.
- Marine pile repairs & encapsulation.
- Anchors, bolts, starters & dowels underwater.

### ADVANTAGES:

- Minimal washout underwater.
- Waterproof.
- Pourable or pumpable.
- One component.
- High strength.
- Shrinkage compensated.
- Durable.
- Impermeable to water borne aggressors such as chloride ions.
- Improved abrasion resistance.

### DURABILITY ENHANCER, STEEL PROTECTION & WATERPROOFING:

Cemgrout UW is enhanced with Cemix® Penetron Admix. This admixture is an integral crystalline concrete durability enhancer & waterproofing material, which further protects & waterproofs the mortar in-depth by making it completely impermeable to water borne aggressors such as chloride ions. This admixture permanently waterproofs & protects the grout & imbedded structural steel from long-term corrosion & deterioration.

### SUBSTRATE PREPARATION:

Substrates should be clean & free from all contaminants, loose particles, coatings, curing compounds, dirt, mould, oil etc. Substrates must be sound, rough & dampened to ensure a good bond.

### FORMWORK PREPARATION:

When grouting around marine piles, they must be enclosed with good quality rigid watertight formwork. The formwork must be able to rigidly confine the Cemgrout UW until it has set.

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**TECHNICAL DATA:**

<b>APPEARANCE:</b>	Sand / Cement Grey
<b>HEIGHT CHANGE:</b>	Positive Expansion
<b>STRENGTH:</b>	40Mpa @ 7 days; 60Mpa @ 28 days; 4.5L water.
<b>APPLICATION TEMP:</b>	1°C - 25°C
<b>BOND STRENGTH</b>	>3MPa
<b>CHLORIDE ION PERMEABILITY:</b>	<1000 Coulombs
<b>WORKING TIME:</b>	40mins @ 20°C
<b>THERMAL COEFF OF EXP:</b>	9.0 x 10 <sup>-6</sup> mm/mm/°C

*The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations may occur on site.*

**COVERAGE:**

12.1L or 0.0121m<sup>3</sup> per 20kg bag at 4.5L of water.

**PACKAGING:**

Cemix® Cemgrout UW is available in 20kg bags.

**STORAGE & SHELF LIFE:**

Cemix® Cemgrout UW can be stored in its original packaging in a dry place well sealed for six (6) months after production. Do not store opened bags.

**CLEANING:**

Clean all tools with water & brush immediately after use.

**MOVEMENT / CONTROL JOINTS:**

Honour any control joints in the concrete substrate – do not apply product over control joints. Create control joints in the grout as required especially in long thin sections.

**MIXING:**

Mix whole bags of product. Mix thoroughly for 2 to 3 minutes using a drill & paddle or suitable mechanical grout mixer. If a less fluid consistency is required, less water can be added. More water will increase flow but reduce strengths. Add 4L of water to the mixer & then add the product to the water. Add rest of water slowly whilst mixing until the desired consistency is achieved. Typical total water for a pourable consistency is approximately 4.5L per 20kg bag. Use product immediately. This is a reasonably fast setting product; do not mix more product than can be mixed, placed & finished in 40 minutes. Use chilled water in hot weather as well as to extend working time slightly in normal ambient temperatures. Use chilled mixing water for deep or larger volume pours.

**MIXING WATER DOSAGES:**

MIXING WATER	YIELD (M <sup>3</sup> )	CONSISTENCY	MPa (RESTRAINED)
4.5L water	0.0121m <sup>3</sup>	Pourable	7days 40.0MPa 28days 60.0MPa

**Limitations:**

- Do not apply product onto surfaces less than 5°C & more than 30°C.

**Precautions:**

- Please take note that this is a fast setting product with limited working time.**
- Large / deep volumes of grout can generate excessive heat whilst hardening. This may lead to thermal cracking. For large volume applications consider using Cemix® Structural Repair Flowable.
- In very hot weather, use chilled mixing water.
- In very hot weather, use warm mixing water.
- More mixing water will increase flow but reduce strengths.

**SAFETY:**

Avoid contact with eyes & skin, both from wet & dry mix. Do not breathe in dust. Wear suitable protective clothing, gloves, eye protection & barrier cream. Wear a suitable dust mask. Wash thoroughly after handling & store any leftover material properly.

**FIRST AID:**

Irrigate eyes & skin with plenty of water & seek medical advice immediately.

**SPILLS AND LEAKS:**

Keep out of sewers & storm water drains & dispose of any leftover material as trade waste in accordance with local authority guidelines.

**DISCLAIMER:**

Please Note: Recommendations and advice regarding the use of this product are to be taken as a guide only. Other than as appears on this products packaging, Cemix® LTD. does not give any warranty express or implied as to the suitability of this product for your particular use, because the usage of this product is beyond the control of Cemix® LTD. If you need advice concerning the use of suitability of this product for your particular application, please contact Cemix® LTD first. If this product is defective because of Cemix® LTD's fault, please contact the supplier or Cemix® LTD. who will replace it at no cost.

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