



# ARMORGROUT- 50

## NON-SHRINK CEMENTITIOUS STRUCTURAL GROUT

STRUCTURAL GROUT

### PRODUCT DESCRIPTION

ARMORGROUT-50 is a non-shrink cementitious structural grout containing expansion agents to prevent shrinkage while the product hardens. It is designed for grouting all kinds of machinery, steel columns, precast concrete, bearing plates and anchoring applications. ARMORGROUT-50 develops high early strength and ultimate strength at 28 days.

### BENEFITS

- Non-corrosive, therefore will not attack reinforcement
- Controlled expansion
- High strength and chemical resistant
- High Flow and Fluidity
- Good impact and chemical resistance
- Meets ASTM C1107

### AREAS OF APPLICATION

- Machinery bases and sole plates
- Anchor bolts
- Columns bases
- Pile cap re-profiling
- Gap filling and transfer lines
- Bridge bearing
- Pre-cast elements and other grouting conditions requiring high in-use strength

### SURFACE PREPARATION / APPLICATION

Surfaces must be cleaned thoroughly, free of loose and unsound material, cement slurry and any other deposits. Surfaces must be free of oil, grease and other membranes. Rusted surfaces must be properly ground or abraded by mechanical means. Area to be grouted with ARMORGROUT-50 must be saturated surface dry, that is, it must be saturated with water hours earlier, and the surface water must be almost drained before application.

### YIELD

At standard water content, each bag of ARMORGROUT-50 will yield 9 Liters (0.45 cubic ft) of fluid, Consistent grout. The standard water content for ARMORGROUT-50 is 3 liters of water for a 20kg bag. Approximately **80-100 bags of ARMORGROUT-50 are required for 1 cubic meter** of grout pour.

### TECHNICAL INFORMATION

<b>Plastic expansion</b>			+0.2%
<b>Hardened Expansion</b>			+0.2%
<b>Air content</b>			3.6%
<b>Flexural Strength</b>			7days 7.2NMM2 28days 8.6NMM2
<b>Plastic density</b>			2150 Km <sup>3</sup>
Approx. water content per bag			3 L
Bleed			Nil
Flow, ASTM C939			
Flow, at 5 drops, ASTM C1437			100-125
<b>Compressive strength, ASTM C109 @ 30%</b>			
<b>Expansion: 2% @ 24hrs</b>			
	<b>Plastic Consistency</b>		<b>Fluid Consistency</b>
<b>1 day</b>	25 N/mm2		20 N/mm2
<b>7 days</b>	45 N/mm2		40 N/mm2
<b>28 days</b>	65 N/mm2		60 N/mm2
Height change, ASTM C1090			
1, 3, 7 and 28 days	0 - 0.2	0 - 0.2	0 - 0.2



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### MIXING

The standard water requirement for ARMORGROUT-50 is 3 liters for a 20kg bag (approximately 100 x 20kg bags per 1 cubic meter). However, the correct mix proportion of ARMORGROUT-50 to water is always dependent on the use to which the grout is to be put. Trial mixes should be conducted in small quantities to achieve the desired mix specification before use. ARMORGROUT-50 should be mixed with a drum mixer or a small drill mixer and allowed to settle for three to five minutes to prevent air entrapment.

ARMORGROUT-50 should be placed by pumping or manual pour. Appropriate formwork should be done that does not allow leakage, to facilitate ARMORGROUT-50 compaction material should not be vibrated as this may lead to segregation but rather use rodding at intervals of short pours.

### CURING

As soon as the grouting is completed, it should be cured immediately. Suitable curing, such as a membrane and plastic sheet, should be used to protect freshly applied ARMORGROUT-50. Curing should continue for 7 days after pouring. Free water should be removed before pouring, and the grout should be poured continuously so as to ensure air is not trapped.

### PACKAGING AND SHELF LIFE

Materials are packed in 20kg bags. Shelf life is 12 months stored in cool, dry place in an unopened pack

### COLOUR

Grey powder when not mixed, and dark grey when mixed.

### HEALTH AND SAFETY

This product is highly hazardous if not used appropriately, and it must be administered by trained and professional persons.

### LIMITED WARRANTY

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