

MORTAR 302 I

Quartz Reinforced Composite
Epoxy Grout (High Strength)

GENERAL DESCRIPTION

AXEL MORTAR 302 I is a specially formulated double component composite quartz reinforced high strength epoxy grout mortar with anti-skid or rough finish.

AXEL MORTAR 302 I is used as a high early strength grout patching for repair, bonding in concrete or metal substrates as in spun pile jointing, concrete square pile, U drain, culverts, manhole, pre-cast beams, bridges, or columns.

RECOMMENDED USES

- * Grout patching to machinery or stanchion column base
- * Bonding to bridge bearing pad, marble or slate floor or wall
- * High early strength repair to car park floor or potholes
- * Repair of honeycomb concrete
- * Expansion of joint edge treatment

CHARACTERISTICS & ADVANTAGES

- * Good chemical resistant surface
- * High abrasion and impact resistant properties
- * Very high bond strength to concrete, stones, porous materials and metal
- * Rapid set with high early compressive strength exceeding 90 MPa in 1 day and 105 MPa in 7 days

COVERAGE

Theoretical coverage: 2.1kg /m² /mm thick

COLOURS

Light Grey

PACKING

10.40kg per set (Part A: 10 kg per pail Part B: 0.40 kg per bottle)

STORAGE

Store in a dry, cool and shaded place

SHELF LIFE

12 months from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened and or cured material can only be mechanically removed.

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SURFACE PREPARATIONS

Remove all grease, oil, grime, flaking paintworks, dirt and dust. Loose concrete and the laitance layer should also be removed. Surface preparation by water-blasting, scabble, dry abrasive blasting or hacking is acceptable. The resulting surface should then be rough, porous and free of all standing water. For more detailed information on surface preparation kindly contact AXELCHEM SDN BHD technical department.

METHOD OF APPLICATION

Surface preparation:

Ensure that the base is properly prepared, removed of all loose concrete debris, oil, dirt and is then primed with **AXEL PRIMER S** at 50 microns DFT for stubborn surface.

Floor patching or screeding:

After the floor is prepared, mix **AXEL MORTAR 302 I** with Part A and B with a hopper or mixer drill for 5 minutes until the mix is homogeneous. Trowel the mix over the prepared floor with a metal trowel. Use **AXEL SOLVENT 914** to clean trowel before each application for smooth finishing.

Patching repair or bonding:

(For spun or square piles) After the pile has been hacked or prepared, mix **AXEL MORTAR 302 I** with a hopper, mixer drill or hand mix (for small quantity) for 5 minutes and then mould the grout to a "moth ball" and press it over the prepared surface. Use a glove and wet it with soap water to even out the grout to a smooth finish.

Note: Only use spatula hand mixing for small quantity batching

TECHNICAL SPECIFICATIONS

Compressive strength	ASTM C-579	≥90 MPa (1 day)	≥100 MPa (3 days)	≥105 MPa (7 days)
Flexural strength	ASTM C-580	245 kg/cm ²		3,480 Psi
Tensile strength	ASTM C-307	76 kg/cm ²		1,078 Psi
Flexural modulus of elasticity	ASTM C-580	1.65 x 10 ⁵ cm/cm ²		2.35 x 10 ⁵ Psi
Linear coefficient of thermal expansion	ASTM C-531	1.46 x 10 ⁻⁵ cm/cm°C		8.1 x 10 ⁻⁶
in/in°F thermal compatibility to concrete	ASTM C-884	Pass		
Linear shrinkage	ASTM C-531	0.0063%		
Composite shore D durometer hardness	ASTM D-2240	>90		
Abrasion resistance	ASTM D-4060	0.202 grams max weight loss		
Bond strength: excellent - 100% concrete failure		> 28 kg/cm ²		> 400 Psi
Cured density		2.1 g/cc		131 lb/cu.ft
Volumetric density		476 cc/kg		13.2 lb/cu.in
Maximum temperature	Continuous	66°C		150°F
(Dependent on service)	Intermittent-immersion	93°C		200°F
Mixing ratio		A:B = 25:1		

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