

## MORTAR 303i

Early High Strength Composite Epoxy  
Paste Grout Mortar (Fine Grade)

### GENERAL DESCRIPTION

AXEL MORTAR 303i is a 2 component ultra-high early strength malleable epoxy composite grout mortar paste formulated as a fine grade smooth patching grout for repair or bonding to concrete, metal, stone, glass or timber substrates.

AXEL MORTAR 303i is commonly used as a high strength early sealing and patching to concrete piles where a smooth on high strength bond is necessary in joint seam, joint plate, capping, bridge bearing pad-grouting.

### RECOMMENDED USES

- \* Column
- \* Anchor bolting
- \* Structural concrete patching
- \* Crack lines or honey comb concrete
- \* U drain
- \* Concrete joint repair
- \* Pre-cast panel or beam
- \* Concrete spun or square piles

### CHARACTERISTICS & ADVANTAGES

- \* Economical
- \* High compressive strength  $\geq 90$  MPa in 1 day & bond strength
- \* Good chemical resistant properties
- \* Re-coatable to most epoxy or paint system
- \* No corrosive effect caused by metallic residue
- \* Good tensile strength
- \* Durable
- \* Easy to smoothen

### COVERAGE

Theoretical coverage:  $2\text{kg} / \text{m}^2 / \text{mm}$  thick

### COLOURS

Concrete grey

### PACKING

18 kg per set

Part A: 12 kg per pail

Part B: 6 kg per pail

### STORAGE

Store in a dry, cool and shaded place



### SURFACE PREPARATIONS

Ensure that the base substrate is clean and free from loose material or contaminant. Apply **AXEL PRIMER S** where necessary for high demand for better bond.

### 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 303i** 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 repair, hack and remove loose mortar or crack concrete. Mix **AXEL MORTAR 303i** and patch surface to the desired thickness. Use glove and soap waster to smoothen surface.

Note: Only use spatula hand mixing when using in small quantity batching.

### CLEANING OF TOOLS

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

### TECHNICAL SPECIFICATIONS

No. of component	Two
Mixing ratio	2:1 (A:B)
Density (25°C)	Approximately 2 kg/l
Pot life (28°C)	Approximately 30 minutes
Compressive strength	BS EN12390 >90 MPa (1 day) >95 MPa (3 days) >100 MPa (7 days)
Flexural strength	ASTM C-580 30 MPa
Tensile strength	ASTM C-307 10.5 MPa
Bond strength : excellent - 100% concrete failure	> 5 MPa
Full cure	7 days
Water absorption	< 0.5%

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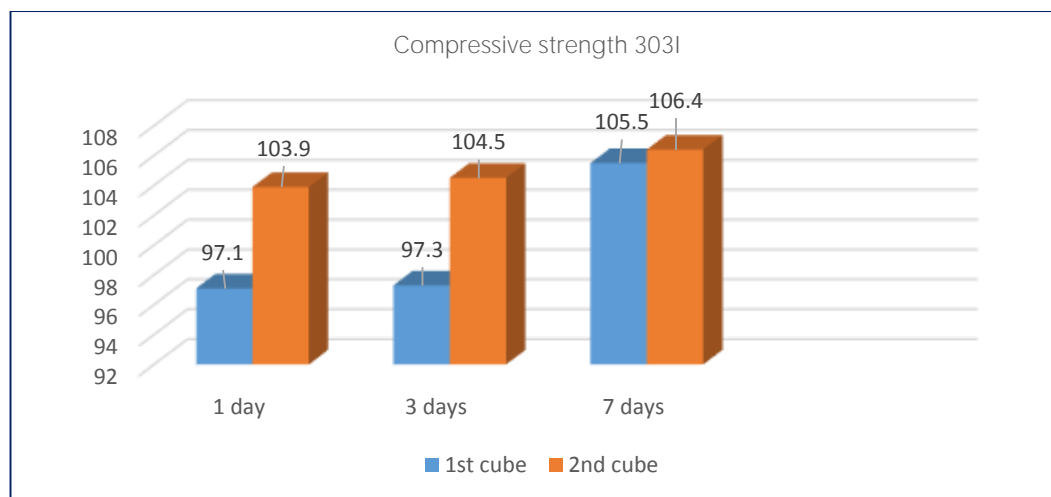
### TEST DATA

Compressive strength of 50mm x 50mm x 50mm grout cube

Test method: BS EN 12390 - Part 3: 2009 conducted by Setsco Service (M) Sdn Bhd

Lab's marking	Dimension (mm)			Date cast	Date test	Age at Test	Mass (kg)	Density (kg/m <sup>3</sup> )	Maximum load (kN)	Compressive Strength (N/mm <sup>2</sup> )	Mode of Failure
	x	y	z								
1	50	50	50	22/09/2020	23/09/2020	1	0.28	2240	242.8	97.1	Satisfactory
2	50	50	50				0.28	2240	259.8	103.9	Satisfactory
3	50	50	50		25/09/2020	3	0.26	2080	243.2	97.3	Satisfactory
4	50	50	50				0.28	2240	261.2	104.5	Satisfactory
5	50	50	50		29/09/2020	7	0.26	2080	263.8	105.5	Satisfactory
6	50	50	50				0.26	2080	265.9	106.4	Satisfactory

**Notes:** The Mode of Failure is based on the assessment of type of failure shown in figure 1 and figure 2 of BS EN 12390-3 : 2009



### SHELF LIFE

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

The above data is provided in good faith and to the best of our knowledge. However, since application and services conditions are beyond our control, we do not accept liability relating to coverage, performance and injury arising from the use of our products based on the data. Further with the constant advancement of technology we reserve the right to modify data without prior notice and we advise that you check with our Axelchem Technical Department at Tel: 603-6276 2118 the validity of these data especially if more than six months have lapsed since issue.