



# TAMMS STRUCTURAL MORTAR

FIBER REINFORCED, NSF/ANSI 61 CERTIFIED LOW PRESSURE  
 SPRAY OR HAND APPLIED REPAIR MORTAR

### PACKAGING

TAMMS STRUCTURAL MORTAR is packaged in 25kg polyethylene lined bags.

### APPROXIMATE YIELD

14 Litres per 25kg when mixed with 3.8 litres of water

### CLEAN-UP

Clean tools and equipment with water immediately following use.

### SHELF LIFE

18 Months in original, unopened container when stored in dry conditions. Heavy relative humidity will reduce the shelf life.

## DESCRIPTION

TAMMS STRUCTURAL MORTAR is a single-component repair mortar applied by low pressure spray or by hand for structural concrete repairs. TAMMS STRUCTURAL MORTAR is a proprietary formulation of Portland Cement, graded aggregates, migrating corrosion inhibitors (MCI™), unique fibres and polymers to increase adhesion, strength and sprayability.

## PRODUCT CHARACTERISTICS

### FEATURES / BENEFITS

- Low pressure spray or trowel applied
- 30 Minute working time
- Single-component, micro-fibre enhanced
- Silica fume and polymer enhanced 10 to 50mm applications
- Contains Migrating Corrosion Inhibitor (MCI™)
- Freeze-thaw resistant
- NSF/ANSI Standard 61 certified

### PRIMARY APPLICATIONS

- Vertical and overhead concrete repairs
- Interior and exterior use
- Bridge, parking garages & tunnels
- Compatible with galvanic anodes
- Manholes, pipelines, dams & other waste water structures

## TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Property	Values (based on 3.6 litre water) at 25 °C	
Set Time (ASTM C266, Gillmore)	Initial Set	± 60 min
	Final Set	± 90 min
Compressive Strength (ASTM C109)		<b>3.0 Litre</b> <b>3.8 Litre</b>
	1 Day	22.0 MPa      19 MPa
	7 Days	40.0 MPa      35 MPa
	28 Days	58.0 MPa      50 MPa
Flexural Strength (ASTM C78)	7 Days	10.3 MPa
	28 Days	11.4 MPa
Volumetric Resistivity	11 300 ohm-cm	
Shear Bond Strength (ASTM C882)	28 Days	22.4 MPa
Splitting Tensile Strength (ASTM C496)	7 Days	3.3 MPa
	28 Days	4.5 MPa
Freeze Thaw Resistance (ASTM C666)	300 Cycles	96% RDF
Chloride Permeability (ASTM C1202)	1 050 coulombs	

Tamms Structural Mortar (5) July 2024 replaces February 2024

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## DIRECTIONS FOR USE

**Surface Preparation:** Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to expose the main aggregate and achieve a surface profile equal to CSP (Concrete Surface Profile) 6 to 9 in accordance with ICRI Guideline 310.2. Properly clean profiled area.

**Pre-saturation of the Substrate:** Method for pre-saturation to be determined on-site to achieve required saturated surface dry (SSD) condition of the substrate.

**Priming & Bonding (saw cut & chipped out repairs):** Thoroughly clean any exposed reinforcing steel and apply a scrub coat of TAMMS STRUCTURAL MORTAR to the saturated surface dry (SSD) concrete surface. The repair mortar must be placed on the scrub coat before the scrub coat dries out.

**Priming & Bonding (vertical & overhead skim coats):** Apply a scrub coat of TAMMS STRUCTURAL MORTAR to the saturated surface dry (SSD) concrete surface. The repair material must be placed on the scrub coat before the scrub coat dries out. If using low pressure spray equipment, TAMMS STRUCTURAL MORTAR can be applied over an SSD substrate.

**Mixing:** TAMMS STRUCTURAL MORTAR will require approximately 3.0 to 3.8 litres of potable water per 25kg bag to achieve the proper mix consistency. Pour the measured amount of water into a clean mixing container, then add the TAMMS STRUCTURAL MORTAR, and mechanically mix for 3 to 4 minutes. For hand applications, slightly less water may be required.

**Application:** TAMMS STRUCTURAL MORTAR may be hand applied or with low-pressure wet spray equipment commonly used for plastering. It is always recommended to use spray equipment for larger repairs. Succeeding lifts may be placed after material reaches initial set. Prior to application, follow surface preparation and priming instructions above.

**Curing:** TAMMS STRUCTURAL MORTAR is a cementitious repair mortar and must be cured per ACI guidelines using a cure and seal compound or appropriate water curing methods, such as wet burlap / burlene.

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## PRECAUTIONS / LIMITATIONS

- Protect stored bags from moisture.
- Protect repair from direct sunlight, wind and other conditions that could cause rapid drying.
- Not to be used as a horizontal topping.
- Minimum ambient and surface temperature should be 4°C and rising at the time of application.
- When necessary, follow the recommendations in ACI 305R “Guide to Hot Weather Concreting” or ACI 306R “Guide to Cold Weather Concreting”.
- Curing according to ACI guidelines is required for optimum performance and durability.
- In all cases, consult the Material Safety Data Sheet before use.
- Do not allow repairs to freeze until the material has reached a minimum of 7 MPa compressive strength.
- Use only potable water for mixing.
- For optimum results, condition material to 18°C to 26°C at least 24 hours prior to use.

### NOTE:

- MCI™ is a trademark of the Cortec Corporation, registered in the United States and other countries.

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