



TECHNICAL DATA SHEET

DURALTOP® FLOWABLE MORTAR

Polymer Modified Flowable Cementitious Repair Mortar

03930

CONCRETE REHABILITATION
CONCRETE

TAMMS INDUSTRIES
NOVEMBER 2003 (Replaces 2/03)

1. **DESCRIPTION:** DURALTOP FLOWABLE MORTAR is a two component, pre-proportioned, polymer modified, flowable, cementitious, patching and repair mortar.

FEATURES

- *Flowable repair mortar for hard to reach places*
- *Polymer modified*
- *Contains a migratory corrosion inhibitor*
- *Excellent adhesion and durability*
- *Resistant to abrasion, freeze-thaw and deicing chemicals*
- *Pre-proportioned unit for ease of use*

APPLICATIONS

- *Interior and exterior, above or below grade*
- *Leveling and repair of horizontal concrete and masonry surfaces*
- *Structural repairs*
- *Parking & bridge decks, industrial floors, etc*

2. **COMPOSITION AND MATERIAL:** DURALTOP FLOWABLE MORTAR is a two component product. Component A is a proprietary compound of portland cements, finely graded aggregates, a migratory corrosion inhibitor and specific chemical additives. Component B is a proprietary formulation of polymer based binders and modifiers.

3. **SURFACE PREPARATION:** Surfaces to receive DURALTOP FLOWABLE MORTAR must be structurally sound, clean and free of dirt, paint, efflorescence, oil and all other contaminants. Sandblast, shot-blast or mechanically abrade the surface to remove laitance, coatings, deteriorated concrete or other substances which might interfere with adhesion. Clean and prime exposed steel and reinforcing with DURALPREP AC. The repair area must be at least 1/4" deep. Immediately before application, dampen the surface with potable water to the point of saturation. Remove excess moisture, drips and puddles from the surface.

4. **MIXING INSTRUCTIONS:** Mix only one kit of DURALTOP FLOWABLE MORTAR at a time. In a clean container, add 2/3 of liquid Component B. Use a 1/2" slow speed (400-600 rpm) drill and a Jiffy mixer, gradually add the powder (Part A) to produce a mortar with a smooth consistency and without lumps. Add remaining liquid to get desired consistency. Do not mix longer than 3 minutes. If extending with an aggregate, use of a mortar mixer is recommended. The aggregate should be added after the powder is added to the liquid. To fill areas deeper than 1-1/2 inch (1.89 cm), clean saturated surface dry, 3/8 inch (0.95 cm) pea rock or chip stone can be used to extend DURALTOP FLOWABLE MORTAR. Do not use limestone aggregate. Do not exceed 35 pounds (15.9 kg) of aggregate for each unit of DURALTOP FLOWABLE MORTAR.

5. **APPLICATION TECHNIQUES:** Air and surface temperature must be above 45°F (7°C) and rising. Apply DURALTOP FLOWABLE MORTAR immediately after mixing. The approximate working life is 30 minutes depending on the temperature. Apply DURALTOP FLOWABLE MORTAR to the predampened surface. Consolidate and screed. Apply the mortar in lifts of not more than 1.5 inches (3.8 cm). Finish in 30-60 minutes of mixing depending on the temperature, following the standard procedures for finishing.

6. **CURING:** Follow standard ACI guidelines for curing. In case of high temperature, high wind or low humidity causing rapid surface drying, use wet burlap, plastic or a water based curing compound. Pretesting of the curing compound is recommended. Protect from rain and freezing. DO NOT use solvent based curing compounds.

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Material Properties at 75°F

| Test Method | Criterion | Results |
|---------------------------------|------------|---------|
| ASTM C109 (Mod.) | | |
| Compressive Strength, psi | 4 hours | 800 |
| | 1 day | 2500 |
| | 3 days | 4600 |
| | 7 days | 6000 |
| | 28 days | 7200 |
| ASTM C293 | | |
| Flexural Strength, psi | 7 days | 1750 |
| | 28 days | 2000 |
| ASTM C882 (Mod.) | | |
| Bond Strength, psi | 7 days | 1100 |
| | 28 days | 2450 |
| ASTM C496 | | |
| Splitting Tensile Strength, psi | 28 days | 710 |
| ASTM C666 | | |
| Freeze Thaw Durability Factor | 300 cycles | 95.5% |

Values presented are typical laboratory data.

7. **YIELD:** One kit of DURALTOP FLOWABLE MORTAR will yield approximately 0.5 cubic feet (0.014 cu m) of mortar.

8. **CLEAN-UP INSTRUCTIONS:** Clean tools and equipment with water immediately following use. Clean drips with water while still wet. Dried DURALTOP FLOWABLE MORTAR will require mechanical abrasion for removal.

9. **PACKAGING & STORAGE:** 52 lb. bag as Powder Part A. 1 gallon liquid as Part B.

Storage: 40-90°F in protected, dry storage. Protect from freezing.

Shelf Life: 1 year

Freight Class: 55

10. **CAUTIONS:** Mix only one kit at a time. DO NOT MIX DURALTOP FLOWABLE MORTAR LONGER THAN 3 MINUTES. Do not allow liquid component to freeze. Dampen surfaces before applying. Do not apply DURALTOP FLOWABLE MORTAR below 45°F (7°C). Apply immediately after mixing. Minimum application thickness 1/4", maximum thickness per lift 1-1/2". Do not use limestone aggregate. Do not use solvent base curing compounds.

11. **ENVIRONMENTAL AND SAFETY PRECAUTIONS:** **Part A** contains portland cement which is alkaline on contact with water. Do not breathe dust. May cause delayed lung injury (Silicosis). IARC reports Crystalline silica may cause cancer in humans. Irritating to eyes and skin. Avoid splashing into eyes or contact with skin. In case of eye contact, flood eyes repeatedly with potable water and call a physician. DO NOT RUB EYES. Wash skin thoroughly after handling and before smoking or eating. Use adequate ventilation. **Part B** contains a polymer. Avoid breathing vapors or mist. Irritating to eyes and skin. Avoid splashing into eyes or contact with skin. In case of eye contact, flood eyes repeatedly with potable water and call a physician. DO NOT RUB EYES. Wash skin thoroughly after handling and before smoking or eating. Use adequate ventilation. **KEEP AWAY FROM CHILDREN AND ANIMALS.**

12. **TECHNICAL SERVICE:** For application procedures or surface conditions not specified above, please contact:

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