



DURALTOP® GEL

VERTICAL AND OVERHEAD POLYMER REINFORCED REPAIR MORTAR

DESCRIPTION

DURALTOP GEL is a fast setting, two component, polymer reinforced, non-sag, cementitious patching and repair mortar.

PRIMARY APPLICATIONS

- Structural repairs
- Exterior or interior, above or below grade
- Vertical and overhead concrete and masonry repairs

FEATURES/BENEFITS

- Fast setting, polymer modified repair mortar
- Achieves high, early compressive, flexural and bond strengths
- Contains a migratory corrosion inhibitor
- Non-sag, high build properties
- Pre-proportioned unit
- ▲ Can contribute to LEED points

TECHNICAL INFORMATION

Material Properties at 75°F (24°C)

Compressive Strength, psi (MPa) ASTM C 109 (Mod.)

| | |
|---------------|---------------|
| 4 hours | 1,150 (7.93) |
| 1 day | 4,000 (27.58) |
| 3 days | 6,100 (42.06) |
| 7 days | 7,050 (48.61) |
| 28 days | 8,500 (58.61) |

Flexural Strength, psi (MPa) ASTM C 293

| | |
|---------------|---------------|
| 1 day | 2,000 (13.79) |
| 28 days | 2,180 (15.03) |

Bond Strength, psi (MPa) ASTM C 882 (Mod.)

| | |
|---------------|---------------|
| 7 days | 2,100 (14.48) |
| 28 days | 2,475 (17.06) |

Splitting Tensile Strength, psi (MPa) ASTM C 496

| | |
|---------------|------------|
| 28 days | 750 (5.17) |
|---------------|------------|

Freeze/Thaw Resistance NYSDOT 502.3P

| | |
|-----------------|-------------------|
| 50 cycles | 0.18% Weight Loss |
|-----------------|-------------------|

Expansion/Contraction: ASTM C 157

| | |
|---------------|--------|
| 7 days | 0.04% |
| 28 days | 0.062% |

Vertical/Overhead Patching NYS DOT 701.08

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Chloride Permeability ASTM C 1202

| | |
|--------------------|------------|
| 160 coulombs | "very low" |
|--------------------|------------|

Typical results obtained under laboratory conditions.

PACKAGING/YIELD

Part A (powder) 44 lb (20 kg)/bag. Part B (liquid) 1 gal (3.8 L) container. One kit of DURALTOP GEL will yield approximately 0.4 ft³ (0.01 m³).

SHELF LIFE

1 year in original, unopened package.

COVERAGE

Applied at the following thicknesses, one bag will cover:

1/4 " (6.3mm) 19.2 ft² (1.78 m²)

1/2" (12.7 mm) 9.6 ft² (.891 m²)

Coverage rates are approximate and are for estimating purposes only.

DIRECTIONS FOR USE

Surface Preparation: Surfaces to receive DURALTOP GEL must be structurally sound, clean, and free of dirt, oil, and all other contaminants. Abrasive blast, shotblast 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 A.C. Abrade non absorptive surfaces to obtain a proper profile for good adhesion. Flush area with clean water to remove all dust and to dampen the concrete. Remove any puddles before applying DURALTOP GEL. The surface should remain damp during placement.

DURALTOP® GEL
Vertical and Overhead Polymer Reinforced Repair Mortar

Master Format #: 03 0150

Revised: 12.07



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An **RPM** Company



Mix one kit of DURALTOP GEL at a time. In a clean container, add 4/5 of liquid Part B. Using a 1/2" slow speed (400 to 600 rpm) drill and a "Jiffy" mixer, gradually add the powder (Part A) to produce a mortar with a smooth consistency without lumps. Add remaining liquid, if necessary, to some of the mix to obtain a slurry or scrub coat, or to get desired consistency. Do not mix longer than 3 minutes.

Application: Air and surface temperature must be above 45°F (7°C). Apply DURALTOP GEL immediately after mixing. The working life is about 15 minutes, and finish time about 20 to 30 minutes, depending on temperature, humidity and finish desired. The surface must be damp at the time of application. Using a slurry or a scrub coat of DURALTOP GEL helps achieve maximum bond strength and thickness per lift. Before the scrub coat dries, trowel the material against the edge, and gradually work towards the center of the repair area. Apply at a minimum thickness of 1/8 in (0.32 cm), and in lifts of no more than 1.5 in (3.81 cm). Each lift should be allowed to reach final set, and then scored to produce a roughened surface before applying the next lift. Consolidate, screed, and then finish following standard practices.

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.

CLEAN-UP

Clean tools and equipment using water before DURALTOP GEL hardens. Scrape or mechanically remove hardened DURALTOP GEL from equipment.

PRECAUTIONS/LIMITATIONS

- Store at temperatures between 40° to 90°F (4° to 32°C), protected from moisture.
- Protect from freezing.
- Mix only one kit at a time.
- **DO NOT MIX DURALTOP GEL LONGER THAN 3 MINUTES.**
- Do not allow Part B liquid to freeze.
- Dampen surfaces before applying.
- Do not apply DURALTOP GEL below 45°F (7°C).
- Apply immediately after mixing.
- Delayed application will reduce adhesion.
- Minimum thickness 1/8" (3.2 mm), maximum per lift 1 1/2" (44.4mm).
- If a curing compound is desired, use a water-based curing compound only.
- In all cases, consult the Material Safety Data Sheet before use.