

MASTERTOP® 112 TOPPING
SELF-LEVELING, POLYMER-MODIFIED INDUSTRIAL TOPPING

NOTE TO SPECIFIERS

The purpose of this suggested specification is to assist the specifier while developing a specification for the use of Master Builders MASTERTOP 112 TOPPING. This specification has been prepared to be part of a complete project specification. It has not been prepared to be a “stand alone” item. This document is not intended to be copied directly into project specifications.

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.
- B. Provisions of Section 03300, Cast-In-Place Concrete, apply to this section.

1.02 Summary

- A. This section specifies a self-leveling, fast setting, polymer modified cementitious topping ideally suited for leveling and/or resurfacing distressed industrial concrete floors.
- B. This product is composed of a fast setting portland cement, aggregate and proprietary ingredients, which when mixed with clean, potable water, achieves a liquid, self-leveling consistency that smooths and levels and floor surface and provides a durable wear surface for foot traffic.

1.03 References

ACI 305R-91	Hot Weather Concreting
ACI 306R-89	Cold Weather Concreting
ASTM C-109 (Modified)	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars
ASTM C-348 (Modified)	Standard Test Method for Flexural Strength of Hydraulic Cement Mortars
ASTM C-779 (Procedure A)	Standard Test Method for Abrasion of Horizontal Concrete Surfaces

1.04 Quality Assurance

- A. When mixed and placed according to currently published application methods, MASTERTOP 112 TOPPING shall obtain the specified strength in accordance with ASTM C-109 (Modified) and be flowable for proper and easy placement.

PART 2 - PRODUCT

2.01 Materials

- A. MASTERTOP 112 TOPPING by Master Builders Inc.: Combination of proprietary ingredients, portland cement and fine aggregates
- B. Water: Clean and drinkable.
- C. Sealer: ACRYL-SET® LIQUID POLYMER by Master Builders, Inc.
- D. Primer: M.B. PRIMER by Master Builders, Inc
- E. All components will be presented at the jobsite in their original unopened packaging and kept from freezing and from exposure to direct sunlight.

2.02 Proportioning

- A. Materials shall be mixed and placed as per current printed bag instructions.

2.03 Properties

- A. Flow shall be 5 in. to 5-3/4 in. (12.7 cm to 14.6 cm) based on flow test using a 7/8 in. (2.2 cm) high, 2 in. (5.1 cm) inside diameter PVC pipe. Pipe is filled with topping, lifted, spread and measured for flow reading.
- B. For extended workability, flow potential shall remain 5 in. to 3-3/4 in. (12.7 cm to 14.6 cm) after a period of 15 minutes. Floor shall be ready for foot traffic at 4 hours and returned to service at 24 hours.
- C. Material Properties:
 - Compressive Strength: 5000 psi (34.48 MPa) @ 28 days
 - Flexural Strength: 950 psi (6.6 MPa) @ 28 days
 - Self Leveling Time: 15 min. @ 65 °F (21 °C)
 - Initial Set Time: Approximately 1.5 hours @ 65 °F (21 °C)
 - Final Set Time: Approximately 2 hours @ 65 °F (21 °C)
 - Tensile Bond Strength: Approximately 200 psi (1.4 MPa) @ 28 days
 - Abrasion Resistance: 0.064 inches @ 30 min; 0.097 in. @ 60 min

PART 3 - EXECUTION

3.01 Preparation

- A. Surface to receive topping shall be clean and sound, mechanically prepared to remove dirt, oil, sealers, curing compounds, paint, polymer coatings, dust or other foreign (bond breaking) matter.
- B. Joints and cracks (waterpipe, holes, drainage pipes) should be filled (grouted or caulked) to prevent seepage through to bottom areas. (Consult with your Master Builders representative for product recommendations).
- C. Area shall be primed and allowed to dry completely (at least 3 to 4 hours) prior to topping placement. All puddles and thick areas must be removed.
- D. Construction/control or expansion joints should always be cut in toppings directly above those in the base slab to avoid random cracking.

3.02 Placement

- A. Topping shall be placed at a fluid consistency, pumped to a thickness of not less than 1/4 in. (0.6 cm) and a maximum thickness of 1 in. (2.5 cm).
- B. Windows and doors in area receiving topping shall be closed during and following application (until sealer is applied).

3.03 Sealing

- A. At 48 hours after placement, entire topping surface shall be sealed an approved sealer at 500 ft²/gallon (12.3 m²/L).

3.04 Traffic

- A. Topping shall have achieved sufficient strength to allow foot traffic in 3 hours and be in service within 24 hours after application at 70% relative humidity and 65 °F (18 °C).

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