

SECTION 07100
MASTERTOP MONOTEX FWC
FLEXIBLE POLYMER SYSTEM

NOTE TO SPECIFIERS

The purpose of this suggested specification is to assist the specifier in developing a specification for the use of the Master Builders *MASTERTOP MONOTEX FWC* system. Questions regarding the selection, installation, or intended end use of Master Builders materials should be directed to a Master Builders technical representative. This specification is prepared to be a part of a complete project.

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.

1.02 Pre-Qualification

- A. This section specifies a decorative and protective seamless epoxy flooring system that provides an aesthetic and durable wearing surface for balconies, walkways and mechanical equipment rooms.
- B. MASTERTOP MONOTEX FWC flooring is a monolithic system that can be installed in a variety of thicknesses, degrees of surface texture and chemical resistance depending upon the *agreed to* requirements of this project.

1.03 References

ASTM D 1864-88	Test Method for Moisture in Mineral Aggregates
ASTM D 2240-91	Test Method for Rubber Property - Durometer Hardness
ASTM D 4263-88	Test Method for Capillary Moisture in Concrete by Plastic Sheet
ASTM D 412	Test Method for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension

1.04 System Performance Requirements

- A. Provide a flexible polymer flooring that when cured produces the following typical properties.

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>RESULT</u>
Tensile Strength	ASTM D 638	2,000 psi (14 MPa)
Tensile Elongation	ASTM D 412 @ 70 degrees F (21 degrees C)	70%
Impact Resistance	Gardner Direct	>160 in/lb (18 N-m)
Bond Strength to PCC	AASHTO T 237	350 psi (2 MPa)
Hardness, Shore D	ASTM D 2240	62



1.05 Submittals

- A. Submit manufacturer's technical data and product literature indicating that the products comply with specified requirements.
- B. Submit two mock-up sample coupons that are representative of the finished floor surface, texture and color.

1.06 Quality Assurance

- A. Installer Qualification: Use only an installer that is certified in writing by the flooring preparation of substrate, possible delaminated areas, crack and joint repair and complete flooring installation.
- B. Mock-up: On site, fabricate a panel approximately 100 sq. ft. (10 sq. m.) to demonstrate quality of finished floor system, complying with manufacturer's instructions. Install panel where directed by architect/engineer. Maintain panel as a standard quality for all installations.

1.07 Delivery, Storage and Handling

- A. Deliver product in factory packages, clearly marked with manufacturer's identification, printed instructions, lot numbers and shelf life expiration date for each component.
- B. Store material at 50 degrees F to 90 degrees F (10 degrees C to 32 degrees C) in dry environment away from sunlight, heat or other hazards.

1.08 Project Conditions

- A. Maintain minimum concrete surface temperature of 55 degrees F (12 degrees C) for a minimum of 48 hours before, during and after installation, or until cured.
- B. Concrete must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with ground must have a properly installed, effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. Concrete must contain less than 3% moisture when tested per ASTM D 1864.
- C. Concrete to receive a MASTERTOP MONOTEX FWC floor should have been designed and installed as approved by architect/engineer to minimize random cracking, curling, slab deflections and shall contain well designed control and isolation joints as approved by architect/engineer.
- D. Do not apply sealers or membrane curing agents to concrete. Moisture curing of concrete is recommended.
- E. Concrete containing lightweight aggregates are not recommended substrates.
- F. Poor ventilation, lighting and clean, drinkable water supply.
- G. Advise other trades of fixtures and fittings not to be installed until floor is cured, such as: radiators, painting, decorating, floor-supported equipment or cabinetwork, caulking, plumbing, fixtures, etc.
- H. Floors shall be kept free of traffic and no trades shall be permitted in rooms during the application and curing of the coating.
- I. Protect adjacent surfaces from damage resulting from work of this trade. If necessary, mask and/or cover adjacent surfaces, fixtures, equipment, etc. by suitable means.

PART 2 - PRODUCTS

2.01 Materials

- A. Flexible polymer flooring: MASTERTOP MONOTEX FWC by Master Builders, Inc.
- B. (OPTIONAL) Elastomeric Membrane: NEO-V II C by Master Builders, Inc. for protection from water damage and to reduce reflective cracking from the substrate.

PART 3 - EXECUTION

3.01 Inspection

- A. Before starting work, ensure that environmental and site conditions are suitable for application and curing.
- B. Inspect surfaces for acceptability of levelness, moisture content, pitch to drains and other critical factors.
- C. Report in writing to architect/engineer, with copy to manufacturer, of deficiencies that could impair work. Surfaces must be approved by the Certified Contractor prior to application of flooring.

3.02 Surface Preparation

- A. Prepare surfaces in accordance with manufacturer's instructions.
- B. Remove concrete laitance by steel shotblasting, grit blasting or other method approved by manufacturer.
- C. Surface must be clean, sound and dry prior to application.
- D. Prefill surface irregularities, holes and cracks in accordance with manufacturer's recommendations.

3.03 Mixing

- A. Comply with manufacturer's instructions for mixing procedures.
- B. Premix each component before every batch to ensure uniformity.
- C. Carefully measure and mix the components together.

3.04 Installation

- A. Follow manufacturer's written instructions.
- B. (OPTIONAL) Apply stretch coat of NEO-V II C material to minimum width of 3 inches (75 mm) wide and 20 mils (0.4 mm) dry thickness over cracks in substrate.
- C. (OPTIONAL) Embed Pennflex tape or similar reinforcing fabric in NEO-V II C material over cracks in substrate.
- D. (OPTIONAL) Install elastomeric membrane in multiple coats to a dry film thickness of 20 to 30 mils (0.4 to 0.6 mm).
- E. (OPTIONAL) Install cove and/or base in accordance with manufacturer's instructions.
- F. Prime entire surface with recommended primer.
- G. Apply epoxy aggregate matrix in accordance with manufacturer's instruction to a total thickness of 50 to 55 mils by notched blade squeegee. Apply body coat of resin.
- H. Apply grout coat(s) and topcoat(s) at manufacturer's coverage to provide uniform, dense surface.
- I. Allow proper cure time for each installation step.
- J. Allow the finished epoxy flooring to cure for a minimum of 7 days from completion before putting into service.
- K. If necessary, use temporary protection until flooring is fully cured.

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