

Section 09700
MASTERTOP®
MORRITEX ANTI-STATIC
INDUSTRIAL FLOORING SYSTEM

NOTE TO SPECIFIER

The purpose of this suggested specification is to assist the specifier in developing a specification for the use of Master Builders MASTERTOP *MORRITEX ANTI-STATIC FLOORING 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 specification.

PART 1.0 - GENERAL

1.01 Related Documents

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

1.02 Summary

- A. This section specifies an anti-static seamless epoxy flooring system utilizing a pigmented body coat to provide an aesthetic, chemical resistant and durable wearing surface.
- B. MASTERTOP MORRITEX Anti-Static flooring is a monolithic flooring system that is installed at 40 to 45 mils. It is available in a variety of colors, depending on the *agreed to* requirements of this project.

1.03 References

ASTM C 413-88	Test Method for Absorption of Chemical Resistant Mortars, Grouts and Monolithic Surfaces
ASTM C 531-90	Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical Resistant Mortars, Grouts and Monolithic Surfaces.
ASTM C 579-91	Test Method for Compressive Strength of Chemical Resistant Mortars, Grouts and Monolithic Surfaces
ASTM D 638-91	Test Method for Tensile Properties of Plastics
ASTM D 1864-88	Test Method for Moisture in Mineral Aggregates
ASTM D 2240-91	Test Method for Rubber Property - Durometer Hardness
ASTM 4060-90	Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
ASTM D 4263-88	Test Method for Capillary Moisture in Concrete by Plastic Sheet
ASTM D 790	Test Method for Flexural Properties of Unreinforced Plastics and Electrical Insulating Materials
ASTM D 2566	Test Method for Linear Shrinkage of Cured Thermosetting Coating Resins During Curing
NFPA Bulletin #99	National Fire Protection Association (NFPA) Bulletin #99

1.04 System Performance Requirements

A. Provide an anti-static flooring that, when cured, produces the following typical properties:

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>RESULT</u>
Compressive Yield Strength	ASTM C 579	10,500 psi (72.4 MPa)
Tensile Strength	ASTM D 638	4,200 psi (29 MPa)
Tensile Elongation, Minimum Value, Binder	ASTM D 638	1.0%
Flexural Strength	ASTM D 790	6,700 psi (46.2 MPa)
Hardness, Shore D	ASTM D 2240	80 to 85
Curing Shrinkage, Binder (Meets ASTM C 881)	ASTM D 2566	<.005 “/”
Coefficient of Thermal Expansion	ASTM C 531	2.5×10^{-5} “/”/F
Taber Abrasion CS 17 Wheels with 2000 gm load - 1,000 Cycles	ASTM D 4060	0.045 mg
Impact Resistance with no cracking, spalling or chipping	Gardner Impact Tester	160 (in/lbs)
Water Absorption	ASTM C 413	0.15%
<u>Electric Properties</u>		
Surface Resistance	NFPA 99 Test	25,000 to 1,000,000 ohms

1.05 Submittals

- A. Submit a 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 of 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 materials at 50 to 90 degrees F (10 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 MASTERTOP MORRITEX Anti-Static flooring 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. Concretes containing lightweight aggregates are not recommended substrates.
- F. Provide 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 should 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. Anti-static epoxy flooring: MASTERTOP MORRITEX Anti-Static floor system by Master Builders, Inc.

PART 3 - EXECUTION

3.01 Inspection

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

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) Install cove and/or base in accordance with manufacturer's instruction.
- C. Prime entire surface with recommended primer.
- D. Apply epoxy body coat according to manufacturer recommendation to total thickness of 40 mils (1.02 mm).
- E. Allow proper cure time for each installation step.
- F. Allow the finished epoxy flooring to cure for a minimum of 7 days from completion before putting into service.
- G. If necessary, use temporary protection until flooring is fully cured.

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