

Section 03726
MASTERSEAL® 550

FLEXIBLE CEMENTITIOUS COATING FOR WATERPROOFING & PROTECTION

NOTE TO SPECIFIERS

The purpose of this suggested specification is to assist the specifier while developing a specification for the use of Master Builders MASTERSEAL® 550. 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.

1.02 Summary

A. This section specifies a flexible, ready-to-use, polymer-modified, cement-based coating for waterproofing, protecting and beautifying concrete, mortar and masonry surfaces.

B. This product is designed for positive and negative side waterproofing, dampproofing and to provide a uniform aesthetic protective coating to new and existing concrete, mortar and masonry.

1.03 References

ASTM D 412-87 (modified)	Test Method for Rubber Properties in Tension
ASTM D 4541-85	Test Method for Pull-Off Strength of Coatings Using Portable Adhesion-Testers.
ASTM C 884-92	Test Method for Thermal Compatibility Between Concrete and an EPOXY Resin.
ASTM E 96-80	Test Method for Water Vapor Transmission of Materials.
Fed. Spec. TT-P-14411 A	Test Method for Hydrostatic Pressure Test.

1.04 System Performance Requirements

A. Provide a flexible, polymer-modified, cement-based waterproofing and protective coating which when cured produces the following properties:

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| 1. Elongation (ASTM D 412 modified): | Minimum, 28-day 9% |
| 2. Pull-Off Strength (ASTM D 4541): | 100% cohesive failure (0% bond loss). |
| 3. Thermal Compatibility (ASTM C 884): | 5 cycles, no delamination. |
| 4. Water Vapor Transmission (ASTM E 96A): | Max. 1.00 grains/hr/ft ² (0.70 g/hr/m ²). |
| 5. Hydrostatic Pressure Test | |
| [Fed. Spec. TT-P-14411A | |
| @ coverage of 55 ft ² /gal (1.35 m ² /L): | water leakage: none; |
| | softening: none; |
| | delamination: none. |

1.05 Project Conditions

- A. Weather Conditions: Apply protective coating only when ambient and surface temperatures are 45 °F (7 °C) and rising. Do not apply coating if the ambient temperature is expected to fall below 45 °F (7 °C) within 24 hours after placement. Do not apply coating when surface temperature is 90 °F (32 °C) and above.
- B. Follow manufacturer's recommendations regarding additional installation information (hot weather drying conditions, or cold weather installation.)

PART 2 - PRODUCTS

2.01 Materials

- A. Ready-to-use, flexible, polymer-modified, cement-based waterproofing & protective coating: "MASTERSEAL® 550" by Master Builders, Inc. a blend of portland cement, liquid polymer component, specially graded aggregates and set-control admixtures.
- B. Curing: Moist cure with water mist spray.

PART 3 - EXECUTION

3.01 Surface Preparation

- A. Mechanically remove unsound concrete to the limits indicated on the drawings.
- B. Remove existing concrete facing as required to expose sound aggregate. Substrate should not have an amplitude of more than 1/8 in. (3 mm). Limit the size of chipping hammers to 15 lbs. to reduce micro fractures.
- C. Remove all deteriorated concrete. Substrate should be free of all oil, dirt and contaminants. The surface should be roughened by mechanical methods such as sandblasting, water blasting, shotblasting or other suitable means.
- D. Coat exposed reinforcing steel with EMACO® P22 rebar protection coating prior to patching and coating.
- E. Areas deeper than 1/8 in. (3 mm), should be repaired prior to the application of MASTERSEAL® 550 (i.e. with EMACO® R300 or other Master Builders patching mortar.
- F. Pre-wet the surface with clean water to a saturated, surface dry (SSD) condition without standing water. Dense surfaces should be pre-wetted for several hours prior to application. Maintain surface dampness until coating is applied.

3.02 Mixing

- A. Comply with mortar manufacturer's recommendations for liquid component quantity and mixing procedures.

3.03 Application

- A. Apply flexible, polymer-modified, cement-based, ready-to-use waterproofing and protective coating by means of a brush, trowel or spray equipment.
- B. Trowel and Brush Applications: Apply in two coats (cross direction - one vertical and one horizontal) at approximately 31 mils thickness per coat to achieve required performance.
- C. Spray Applications: For large applications, spray apply MASTERSEAL® 550 using a Moyno, carousel or screw-type low pressure spraying machine with suitable spray nozzle as would commonly be used for plastering.

3.04 Curing

- A. Protect fresh mortar from premature evaporation. Cure finished coating by moist curing.
- B. If coating will be subject to continuous contact with water, moist cure the area for three (3) days, followed by four (4) days of air drying.
- C. Protect new applications from rain, strong wind and intense sunlight for 24 hours.

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