

SECTION 09 67 23-RESINOUS FLOORING

DUR-A-GLAZE MVP PRIMER EPOXY MOISTURE MITIGATION SYSTEM (16 mils)

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes the following:
 - 1. Resinous flooring system as shown on the drawings and in schedules.

1.3 SYSTEM DESCRIPTION

- A. The work shall consist of preparation of the substrate, the furnishing and application of a clear epoxy based moisture mitigation system. The system shall have a nominal thickness of 16 mils. It shall be applied to the prepared area(s) as defined in the plans strictly in accordance with the Manufacturer's recommendations.

1.4 SUBMITTALS

- A. Product Data: Latest edition of Manufacturer's literature including performance data and installation procedures.
- B. Manufacturer's Safety Data Sheet (SDS) for each product being used.
- C. Samples: A 3 x 3 inch square sample of the proposed system. Color, texture, and thickness shall be representative of overall appearance of finished system subject to normal tolerances.

1.5 QUALITY ASSURANCE

- A. The Manufacturer shall have a minimum of 10 years experience in the production, sales, and technical support of epoxy and urethane industrial flooring and related materials.
- B. The Applicator shall have experience in installation of the flooring system as confirmed by the manufacturer in all phases of surface preparation and application of the product specified.
- C. No requests for substitutions shall be considered that would change the generic type of the specified System.
- D. System shall be in compliance with requirements of United States Department of Agriculture (USDA), Food, Drug Administration (FDA), and local Health Department.
- E. System shall be in compliance with the Indoor Air Quality requirements of California section 01350 as verified by a qualified independent testing laboratory.
- F. A pre-installation conference shall be held between Applicator, General Contractor and the Owner to review and clarification of this specification, application procedure, quality control, inspection and acceptance criteria and production schedule.

C.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
 - 1. All components of the system shall be delivered to the site in the Manufacturer's packaging, clearly identified with the product type and batch number.
- B. Storage and Protection

1. The Applicator shall be provided with a storage area for all components. The area shall be between 60 F and 90 F, dry, out of direct sunlight and in accordance with the Manufacturer's recommendations and relevant health and safety regulations.
2. Copies of Safety Data Sheets (SDS) for all components shall be kept on site for review by the Engineer or other personnel.

C. Waste Disposal

1. The Applicator shall be provided with adequate disposal facilities for non-hazardous waste generated during installation of the system.

1.7 PROJECT CONDITIONS

A. Site Requirements

1. Application may proceed while air, material and substrate temperatures are between 60 F and 90 F providing the substrate temperature is above the dew point. Outside of this range, the Manufacturer shall be consulted.
2. Do not apply when the relative humidity of the concrete is greater than 99% (at 40% depth of slab) or moisture vapor transmission levels are greater than 20 lbs/1000 sq.ft./24 hours.
3. The Applicator shall ensure that adequate ventilation is available for the work area.
4. The Applicator shall be supplied with adequate lighting equal to the final lighting level during the preparation and installation of the system.

B. Conditions of new concrete to be coated with epoxy material.

1. Concrete shall be at least 5 days old, properly prepared, sound and stable prior to the application of the system.
2. Concrete shall be profiled, clean, dry, oil free and sound.
3. Perform anhydrous calcium chloride tests per ASTM F1869 to determine moisture emission rates and/or in situ probe method testing per ASTM F2170 to determine relative humidity levels

C. Safety Requirements

1. All open flames and spark-producing equipment shall be removed from the work area prior to commencement of application.
2. "No Smoking" signs shall be posted at the entrances to the work area.
3. The Owner shall be responsible for the removal of foodstuffs from the work area.
4. Non-related personnel in the work area shall be kept to a minimum.

2.8 WARRANTY

- A. Dur-A-Flex, Inc. warrants that material shipped to buyers at the time of shipment substantially free from material defects and will perform substantially to Dur-A-Flex, Inc. published literature if used in accordance with the latest prescribed procedures and prior to the expiration date.
- B. Dur-A-Flex, Inc. liability with respect to this warranty is strictly limited to the value of the material purchase.

PART 2 – PRODUCTS

2.1 FLOORING

A. Dur-A-Flex, Inc, Dur-A-Gard, Epoxy-Based seamless flooring system

1. System Materials:
 - a. Dur-A-Flex, Inc, Dur-A-Glaze MVP resin and hardener.

2.2 MANUFACTURER

- A. Dur-A-Flex, Inc., 95 Goodwin Street, East Hartford, CT 06108, Phone: (860) 528-9838, Fax: (860) 528-2802
- B. Manufacturer of Approved System shall be single source and made in the USA.

2.3 INSTALLER

- A. Northwest Floor Care, Inc. 2920 Malmo Drive, Arlington Heights, IL 60005, Phone (847) 640-0390, Fax: (847) 640-1050 Contact: Jim Muzzillo Jr., email: jmuzzillojr@northwestfloor.com

2.4 PRODUCT REQUIREMENTS

A. Primer	Dur-A-Glaze MVP
1. Percent Solids	100 %
2. VOC	0 g/L
3. Viscosity at 70°F (mixed hardener and resin)	1,400 cps
4. Hardness, ASTM D 2240	75-80
5. Compressive Strength, ASTM D 695	11,200 psi
6. Tensile Strength ASTM D 638	2,100 psi
7. Flexural Strength	5,100 psi
8. Permeability ASTM E96	<1.0 perms (non-permeable)

PART 3 – EXECUTION

B.9 EXAMINATION

- A. Examine substrates, areas and conditions, with Applicator present, for compliance with requirements for maximum moisture content, installation tolerances and other conditions affecting flooring performance.
 - 1. Verify that substrates and conditions are satisfactory for flooring installation and comply with requirements specified.

3.2 PREPARATION

A. General

- 1. New and existing concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, and bituminous products.
- 2. Moisture Testing: Perform tests recommended by manufacturer and as follows.
 - a. Perform anhydrous calcium chloride test ASTM F 1869.
 - b. Perform in situ probe method testing per ASTM F2170 to determine relative humidity levels
 - c. Application will proceed only when substrate temperatures are between 60° and 90°F
 - d. If the vapor drive exceeds 99% relative humidity or 20 lbs/1,000 sf/24 hrs then the Owner and/or Engineer shall be notified and advised of additional cost for the possible installation of a vapor mitigation system that has been approved by the manufacturer or other means to lower the value to the acceptable limit.
- 3. Adhere to 24 hour recoat window.
- 4. Core analysis recommended along joint lines prior to installation of any resinous floor systems
- 5. **Do not use as a stand-alone system. Use with manufacturer approved flooring underlayment primers.**

A.10 APPLICATION

A. General

1. Prior to the application of any component of the system, the surface shall be dry and any remaining dust or loose particles shall be removed using a vacuum or clean, dry, oil-free compressed air.
 2. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations.
 3. Typical one coat application.
- B. Primer
1. The primer shall be Dur-A-Glaze MVP Primer that is mixed at the ratio of 2 parts resin to 1 part hardener per the manufacturer's instructions.
 2. The primer shall be applied using a 3/16" notched squeegee and back rolled with a 3/8" nap roller at the rate of 100 sf/gal to yield a dry film thickness of 16 mils.

3.4 FIELD QUALITY CONTROL

A. Tests, Inspection

1. The following tests shall be conducted by the Applicator:
 - a. Temperature
 1. Air, substrate temperatures and, if applicable, dew point.
 - b. Coverage Rates
 1. Rates for all layers shall be monitored by checking quantity of material used against the area covered.

A.11 CLEANING AND PROTECTION

- A. Cure flooring material in compliance with manufacturer's directions, taking care to prevent their contamination during stages of application and prior to completion of the curing process.
- B. Remove masking. Perform detail cleaning at floor termination, to leave cleanable surface for subsequent work of other sections.