



# ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

## DURAFLOW 250

SELF-LEVELING  
EPOXY NOVALAC TOPPING

### P R O D U C T      D A T A

#### DESCRIPTION

Duraflow 250 is a three component, self-leveling, epoxy novalac topping. The product is used to apply a 1/8 inch topping to a floor which will be subjected to high levels of impact and wear and where more chemical resistance than a standard epoxy can provide is required.

#### USES

On concrete floors subject to heavy where and chemical attack including:

- Battery storage facilities
- Chemical processing areas and storage
- Fertilizer plants
- Aviation or automotive maintenance facilities
- Paper mills
- Electronic and vehicular assembly plants
- Fabrication and packaging facilities

#### ADVANTAGES

- Superior chemical resistance compared to standard epoxies
- Restores the rough surfaces to smooth finishes
- Easy to apply - no special tools required
- Excellent compressive, flexural and tensile strengths
- Excellent impact and abrasion resistance
- Produces a smooth, seamless color fast finish
- Eliminates potential trowel marks and uneven finishes.
- Excellent wear resistance in harsh mechanical environments
- Resistant to many acids, alkalies and solvents
- Available in a variety of colors

#### TECHNICAL DATA

Complies with National Volatile Organic Compound Emission Standards for Architectural Coatings, Federal EPA Regulation 40 CFR Part 59

V.O.C. Content: 0 gm/L

USDA approved for incidental contact in meat and poultry packaging facilities

Moisture Vapor Emission Rate (ASTM F-1869)  
Recommended max. for Duraflow 250 application  
< 5 lbs per 000 sf in 24 hours

Gel Time @70°F (21°C) 30 minutes

Compressive Strength (ASTM C 109)  
7 days 7200 psi 50 MPa

Tensile Strength (ASTM C 307)  
7 days 1550 psi 10.7 MPa

Flexural Strength (ASTM C 348)  
7 days 2800 psi 19MPa

Shore D Hardness (ASTM D 2240)  
7 days 75

#### SUGGESTED SYSTEM COMPONENTS

PRIMER: Duraguard 100, epoxy primer

TOPPING: Duraflow 250, self-leveling epoxy topping

TOPCOAT: Duraguard 310 CRU, urethane for increased chemical resistance and gloss or Duraguard 220 for increased and wear resistance

#### ESTIMATING GUIDE

Duraguard 100	8 mils	200 Ft. <sup>2</sup> /Gal
Duraflow 250	1/8"	60 Ft. <sup>2</sup> /unit

#### OPTIONAL TOPCOATS

Duraguard 310	4 mils	300 Ft. <sup>2</sup> /Gal
Duraguard 220	16 mils	100 Ft. <sup>2</sup> /Gal

A standard unit of Duraflow 250 consists of:

Part A Resin	2 gallons	7.6 L
Part B Hardener	1 gallon	3.8 L
Part C Aggregate	50 lb bag	22.6 Kg



## ChemMasters

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Part A packaged in 6 gallon pail for mixing, Part B in 1 gallon can and Part C in a 50 pound bag.

#### **RECOMMENDED EQUIPMENT**

A hand held adjustable screed rake, notched squeegee, porcupine roller and spiked shoes.

#### **DIRECTIONS**

**SURFACE PREPARATION:** This is the most critical step in any coating application. All concrete must be a minimum of 28 days old and mechanically or chemically profiled.

Minimum surface and ambient temperature for application of Duraflow 250 is 50°F (10°C). Do not apply Duraflow 250 if surface or ambient temperature exceeds 100°F (38°C).

Surfaces that slope to floor drains or are moderately out of level require special consideration. Plug and/or mask any utility holes in floors to prevent material from flowing into void and causing loss of topping or clogging entry. Consult ChemMasters' technical service staff for specific recommendations.

**PRIMING:** To ensure maximum adhesion, an application of Duraguard 100 epoxy primer must first be used to prime the substrate prior to the application of Duraflow 250 novalac topping. See Duraguard 100 technical data sheet for mixing and application instructions. Duraflow 250 should be applied when the primer is tack free, but within 72 hours of primer application.

**MIXING:** Duraflow 250 must be mixed before application. Use entire contents of each component. Pour the 1 gallon of Part B Hardener into the Part A Resin. Mix thoroughly for a minimum of one (1) minute or until a uniform color results. Gradually add all of the premeasured Part C Aggregate and mix thoroughly using a 1/2" heavy duty drill at low RPM speed and fitted with a jiffler blade. Properly mixed Duraflow 250 is a smooth, homogenous blend. Total mixing time is approximately three (3) minutes.

**APPLICATION:** Pour the mixed material onto the primed concrete and spread with a hand held screed rake or notched squeegee set to 1/8 inch. After spreading the Duraflow 250 to the proper thickness, gently roll the material with a porcupine roller to eliminate air bubbles. Do not attempt to

pull Duraflow 250 thinner than 1/8 inch as it will not level properly. If a thinner coating is required, contact ChemMasters for assistance.

**TOPCOAT:** Duraflow 250 should be tack free prior to the application of a topcoat of Duraguard 310 CRU or Duraguard 220. This is generally a minimum of 12 hours or an overnight cure.

#### **CLEANUP**

Clean tools and equipment before material dries and hardens with xylene, xylol or glycol ether PM acetate.

#### **LIMITATIONS**

- Avoid applying any polymer coating in direct sunlight during times of extreme heat. This can cause wrinkling, pinholes and blistering. Application should be scheduled for early morning or late afternoon when ambient and substrate temperatures are at their lowest.
- Not for exterior use as a topcoat. Consult ChemMasters technical service department for situations other than those described in this data sheet.
- Do not thin Duraflow 250 with water or solvent. Solvents prevent proper cure.
- Duraflow 250 is packaged in precisely measured units for accuracy of mix ratios. It is critical to a successful application that entire contents of all components are used.
- Do not use when surface or ambient temperatures are below 50°F (10°C).
- Disperse mixed material rapidly. If product is left in mixing container in a large mass, the working time is drastically reduced.

#### **STORAGE**

Store unmixed material in tightly sealed containers at 50°-75°F (10°-21°C), away from direct sunlight or sources of heat. Shelf life of properly stored materials is one year from date of manufacture.

#### **CAUTIONS**

Novalacs are corrosive. Causes skin irritation, sensitization or chemical burns. Respiratory tract irritant. Use with adequate ventilation. Do not take internally. Keep out of reach of children.

#### ***This Product is Formulated and Labeled for Industrial and Commercial Use Only***

*FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT*

*We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.*