



ChemMasters

DURASTONE 240

TROWEL APPLIED EPOXY NOVALAC TOPPING

SPECIALTY CONSTRUCTION PRODUCTS



P R O D U C T D A T A

DESCRIPTION

Durastone 240 is a three component, trowel applied epoxy novalac topping consisting of a two part, 100% solids epoxy novalac and a precisely sized and blended aggregate. It is installed at 0.25 in./0.64 cm depth and is highly chemical resistant.

USES

- New or old, interior, horizontal concrete surfaces
- Industrial, commercial, medical or warehousing applications
- Resurfacing spalled, cracked or deteriorated floors, surfaces subjected to heavy abrasion and impact loads
- Chemical and petrochemical processing and storage facilities, fertilizer plants
- Vehicular manufacturing and assembly plants, automotive showrooms and repair areas
- Hospitals, clean rooms, battery storage areas, paper mills, aviation hangars and repair facilities, laundries and dairies

ADVANTAGES

- Excellent resistance to thermal cycling
- Exceptional compressive, tensile and flexural strengths
- Superior durability, abrasion and impact resistance
- Chemical resistance far exceeding standard epoxy systems
- Rapid curing for minimal downtime
- Forms seamless, nonslip coating, may be formed into wall coving for added protection and improved appearance
- Standard Durastone 240 colors are Light Gray, Dark Gray and Tile Red. Other colors are available subject to minimum order requirements

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 federally inspected meat and poultry processing plants

See Duraguard 220 technical data sheet for chemical resistance chart

Compressive Strength (ASTM D 695)		
1 day	8500 psi	59 MPa
7 days	>10000 psi	69 MPa

Tensile Strength (ASTM C 307)		
7 days	1800 psi	12 MPa

Flexural Strength (ASTM C 348)		
7 days	3100 psi	21 MPa

Thermal Shock Resistance 6 cycles		
40°-160°F		4.4°-71°C

Drying Time @ 72°F./22.2°C. with 50% R.H.		
Foot traffic		12 hours
Light traffic		24 hours
Wheeled traffic		48 hours

SUGGESTED SYSTEM COMPONENTS

PRIMER: Duraguard 100, epoxy primer for excellent adhesion to concrete substrate

TOPPING: Durastone 240, trowel applied, epoxy novalac topping.

TOPCOAT: Duraguard 220, epoxy novalac coating for improved chemical and wear resistance.

PACKAGING

Durastone 240 is available in a 230 lb./104 Kg unit, yielding 60 Ft.2 @ 0.25 in./1.5 M2 @ 0.64 cm, shipped 12 units per pallet shrink wrapped.



ChemMasters

An American Owned & Operated Company
300 EDWARDS STREET • MADISON, OHIO 44057-3112
(440) 428-2105 • FAX (440) 428-7091 • ORDER LINE: (800) 486-7866

Revised 7/15/99

DG-26

SYSTEM ESTIMATING GUIDE

		Ft. ² /gal.	M ² /L
PRIMER:			
Duraguard 100	8 mils	200	5
TOPPING:			
Durastone 240	.25 in./ .64 cm	60	1.5
TOPCOAT:			
Duraguard 220	15 mils	100	2.5

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. For complete surface assessment and preparation guidelines, refer to ChemMasters Technical Bulletin, *Floor Preparation Guide*, or contact ChemMasters technical service staff.

Minimum surface and ambient temperature for application of Durastone 240 is 50°F/10°C. Do not apply Durastone 240 if surface or ambient temperature exceeds 100°F./38°C.

For optimum results, a paddle type mortar mixer is recommended. Durastone 240 is a stiff, heavy mixture and cannot be adequately blended by hand or mechanical drill alone. A plasterer's trowel, wooden screed and a steel finish trowel will be required to produce the best finish.

PRIMING: To ensure maximum adhesion, an application of Duraguard 100, epoxy primer, must first be used to prime the substrate. See Duraguard 100 technical data sheet for mixing and application instructions. Durastone 240 should be applied while the primer is still tacky.

MIX RATIO: A standard unit of Durastone 240 consists of:

Part A Resin	2.4 U.S. gallons	9 Liters
Part B Hardener	0.8 U.S. gallons	3 Liters
Part C Aggregate	200 pounds	90.6 Kg

MIXING: Durastone 240 must be mixed before application. Pour all of the Part B Hardener into the Part A Resin. Use a mechanical drill equipped with a jiffler type mixing prop. Mix for two minutes until a uniform appearance is obtained. Avoid allowing mixing blade to scrape inside of pail.

Pour mixed epoxy into a clean mortar mixer. Gradually add the aggregate while the mixer is running until all aggregate is completely coated and mortar has a uniform appearance. This will require a minimum of two minutes blending time.

Note: Disperse mixed material rapidly. If product is left in mixing container in a large mass, the working time is drastically reduced.

APPLICATION: Place the mixed Durastone 240 mortar onto the primed surface, spread with either a plasterer's trowel or wood screed. Avoid leaving air pockets or voids by insuring mortar is in full contact with substrate. Periodically, check depth of mortar using tip or edge of trowel. Smooth surface with steel finish trowel.

OPTIONAL TOPCOAT: After Durastone 240 is tack free, usually 12 to 18 hours after placement, a topcoat of Duraguard 220 may be applied for increase chemical resistance. Follow directions on Duraguard 220 technical data sheet for mixing and application instructions.

CLEANUP

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

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 property stored materials is one year from date of manufacture.

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 Durastone 240 with water or solvent. Solvents prevent proper cure.
- Do not apply when surface or ambient temperatures are below 50°F./10°C. or exceed 100°F./38°C.

CAUTIONS

CORROSIVE LIQUID: Corrosive to eyes. Causes skin irritation, sensitization or chemical burns. Respiratory tract irritant. Use with adequate ventilation. Do not take internally. Keep out of reach of children.

All label precautions and the MSDS must be fully understood before using this product.

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.