



ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

DURAGUARD 220

CHEMICAL RESISTANT EPOXY
NOVALAC COATING

P R O D U C T D A T A

DESCRIPTION

Duraguard 220 is a two component, 100% solids, chemical resistant, epoxy novalac coating.

USES

- Concrete floors subjected to chemical spills, fumes or immersion in many organic and inorganic acids
- Industrial, commercial, manufacturing, petrochemical operations
- Chemical storage and warehouse facilities, automotive and aviation repair areas, battery storage rooms, mechanical rooms, paper mills
- Hospitals, metal plating shops, canning and bottling plants, airline hangars and automotive repair and body work facilities

ADVANTAGES

- Traffic grade coating suitable that can withstand tow motor traffic and steel wheeled traffic
- Superior resistance to hydrocarbons, animal, mineral and vegetable oils
- High gloss, easy to maintain surface
- Available in clear a variety of colors

TECHNICAL DATA

- USDA approved for incidental contact in meat and poultry processing plants
- Complies with National Volatile Organic Compound Emission Standards for Architectural Coatings, Fed. EPA Regulation 40 CFR Part 59

V.O.C. Content:	0 gm/L
Gel time, 150 ml (0.5 cup) mass	40 minutes
Recoat time @ 75°F (22°C)	8 hours
Viscosity	Part A Resin 2000 cps Part B Hardener 200 cps
Shrinkage (ASTM C 883)	Passes

CHEMICAL RESISTANCE CHART

	Maximum Exposure	Temperature Limit	
		°F	°C
Acetic Acid 10%	Immersion	140	60
Acetic Acid 100%	Fumes	100	37
Aluminum Chloride	Immersion	140	60
Aluminum Hydroxide	Immersion	140	60
Ammonium Chloride	Splash/Spill	>200	>93
Ammonium Nitrate	Immersion	100	37
Barium Chloride	Immersion	100	37
Bleach 5%	Splash/Spill	100	37
Boric Acid	Immersion	100	37
Cadmium Plating	Splash/Spill	100	37
Calcium Chloride	Immersion	100	37
Chromic Acid 40%	Fumes	100	37
Corn Starch/Sugar	Immersion	>200	>93
Dextrose	Immersion	140	60
Diesel Fuel	Immersion	100	37
Ethylene Glycol	Immersion	100	37
Gasoline	Immersion	100	37
Grape Juice	Immersion	140	60
Hydraulic Fluid	Splash/Spill	100	37
Hydrochloric Acid 25%	Splash/Spill	100	37
Hydrochloric Acid 37%	Fumes	100	37
Kerosene	Immersion	100	37
Milk Products	Immersion	>200	>93
Oils, Animal/Vegetable	Immersion	>200	>93
Seawater	Immersion	>200	>93
Sodium Carbonate	Immersion	100	37
Sodium Hydroxide 50%	Immersion	100	37
Sulfite Liquor-Paper	Immersion	100	37
Sulfuric Acid 98%	Splash/Spill	>200	>93
Tall Oil	Immersion	100	37
Trisodium Phosphate	Immersion	100	37
Xylene	Splash/Spill	100	37
Zinc Plating Acid Sulfate	Splash/Spill	140	60

Consult ChemMasters for compounds not noted above or for exposures in excess of those listed.

SUGGESTED SYSTEM COMPONENTS

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

TOPCOAT: Duraguard 220, chemical resistant epoxy novalac coating



ChemMasters

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PACKAGING

Duraguard 220 is available in clear or pigmented formulations. Clear Duraguard 220 is packaged in a 3 gallon (11 liter) unit. Pigmented Duraguard 220 is packaged in a 4 gallon (15 liter) unit.

ESTIMATING GUIDE

Coverage is dependent upon surface texture and porosity

	Ft. ² /gal	M ² /L
PRIMER: Duraguard 100 @ 8 mils	200	5
COATING: 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 28 days old, clean of all contaminants 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 Duraguard 220 is 60°F (16°C). Do not apply Duraguard 220 if surface or ambient temperature exceeds 90°F (32°C).

PRIMING: Surface to be coated must be primed with Duraguard 100 prior to application of Duraguard 220. See Duraguard 100 technical data sheet for mixing and application instructions. Once the surface is primed, Duraguard 220 must be applied within the Duraguard 100 recoat time of 12-24 hours depending on ambient and surface temperatures and relative humidity.

MIX RATIO FOR CLEAR DURAGUARD 220:
2 Parts A Resin: 1 Part B Hardener.

MIX RATIO FOR PIGMENTED DURAGUARD 220:
3 Parts A Resin: 1 Part B Hardener.

MIXING: Duraguard 220 must be mixed before application. Pour all of the Part B Hardener into the Part A Resin. Use a heavy duty mechanical drill equipped with a jiffler type mixing paddle. Blend at low speed to avoid entrapping air in mixture. Excess air can cause pinholes and bubbles in finished coating.

Mix thoroughly for 2 to 3 minutes until coating is a uniform color. Avoid scraping the inside of the pail with mixing prop to prevent pail scrapings to contaminate the mix.

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

APPLICATION: Apply the mixed Duraguard 220 by roller, high pressure, airless sprayer equipped with a .030-.040 nozzle orifice or by brush. Maintain a uniform coverage rate for optimum results.

RECOAT: Allow a minimum of 8 to 10 hours before applying optional second coat of Duraguard 220. Surface should be dry to the touch but not fully cured. If recoating is delayed, a light sanding or screening is recommended prior to second application of Duraguard 220.

CLEANUP

Clean tools and equipment before coating dries and hardens with xylene, xylol or ethyl glycol 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.
- Do not thin Duraguard 220 with water or solvent. Solvents prevent proper cure.
- Not for exterior use as a topcoat, consult ChemMasters technical service department for situations other than those described in this data sheet.
- Duraguard 220 is not intended for use at ambient or surface temperatures below 60°F (15°C) or above 90°F (32°C).

STORAGE

Store unmixed material in tightly closed containers in dry area at normal room temperatures. Condition material to 60°F (15°C) prior to mixing and applying. Shelf life of properly stored material is six months from date of manufacture.

CAUTIONS

CORROSIVE LIQUID: All epoxy novalac materials are corrosive to eyes, cause skin irritation 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.