



# ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

## DURAGUARD 520

HIGHLY CHEMICAL RESISTANT  
VINYL ESTER COATING

### P R O D U C T      D A T A

#### DESCRIPTION

**DURAGUARD 520** is a two-component, flake glass filled, catalyzed novalac vinyl ester coating which exhibits excellent resistance to both aliphatic and aromatic organic solvents and concentrated organic and inorganic acids.

#### USES

- Interior or exterior, horizontal or vertical, concrete or steel surfaces
- Industrial, commercial and warehousing applications
- Plating, chroming or steel manufacturing plants, airline or vehicular equipment repair facilities
- Primary or secondary containment dikes and tanks
- Chemical and petrochemical processing and storage facilities

#### ADVANTAGES

- Excellent chemical resistance especially to oxidizing solutions, acids, alkalis, oils and solvents
- Impact resistant with excellent bonding characteristics
- High strength yet fast curing for minimum downtime
- Excellent flexural and tensile strengths
- Resists degradation at elevated temperatures
- Withstands immersion, fumes and spillage of solvents, caustics and organics
- Abrasion resistance exceeds that of concrete

#### TECHNICAL DATA

- U.S.D.A. approved for incidental contact in federally inspected meat, fish and poultry plants

Compressive Strength (ASTM C-579)	12,000 psi
Tensile Strength (ASTM C 307)	2,600 psi
Tensile Elongation (ASTM D 790)	3-5%
Flexural Strength (ASTM C-580)	5,100 psi
Shore D Hardness (ASTM D 2240)	75-80
Taber Abrasion (ASTM D 4060)	23 mg.

Gel Time (150 ml / 0.5 cup)

50°F (10°C)

70°F (21°C)

90°F (32°C)

90 minutes

60 minutes

45 minutes

#### CHEMICAL RESISTANCE

	Conc. %	Max. °F.
Acetic Acid	75	150
Acetone	10	180
Ethyl Alcohol	95	80
Benzene	100	100
Brake Fluid		120
Brass Plating		180
Chromic Acid	20	150
Citric Acid	100	210
Ethanol	95	100
Formic	98	100
Hydraulic Fluid	100	180
Hydrochloric Acid	37	180
Hydrofluoric Acid	20	100
Jet Fuel (JP-4)	100	180
Nitric Acid	20	150
Phosphoric Acid	100	210
Silver Plating Solution		180
Sodium Hypochlorite	25	180
Sulfuric Acid	75	120
Turpentine	100	150
Xylene	100	120
Zinc Plating Bath		200

Note: Contact ChemMasters technical services department for recommendations to meet your specific requirements.

#### PACKAGING

**DURAGUARD 520** is available in 1 gallon (3.78 L) and 5 gallon (18.9 L) units.

#### ESTIMATING GUIDE

<b>DURAGUARD 500</b> @ 8 mils	175 sqft / ga.
<b>DURAGUARD 520</b> @ 20 mils - first coat	80 sqft / ga.
<b>DURAGUARD 520</b> @ 20 mils - second coat	80 sqft / ga.

Two coat of **DURAGUARD 520** each at 20 mils (80 sqft / ga) are required to achieve resistance to chemicals per the chart above.



## ChemMasters

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300 EDWARDS STREET • MADISON, OHIO 44057-3112  
(440) 428-2105 • FAX (440) 428-7091 • ORDER LINE: (800) 486-7866 \* [www.chemfloors.com](http://www.chemfloors.com)

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## DIRECTIONS

**PRIMING:** Prime clean, prepared substrate with **DURAGUARD 500** before application of **DURAGUARD 520**. See **DURAGUARD 500** technical data sheet for full instructions on mixing and application. Apply the first coat of **DURAGUARD 520** within 24 hours of priming to avoid surface preparation of the primer.

**MIXING:** **DURAGUARD 520** must be mixed prior to application. Mechanically mix the Part A resin for 2 minutes prior to adding hardener. The amount of Part B Hardener required is dependant on the substrate temperature.

	CATALYST PER GALLON RESIN
50-70°F (10-21°C)	3 - 4 ounces
70-90°F (21--32°C)	2 - 3 ounces

Add the appropriate amount of catalyst for each gallon of resin being mixed and mix thoroughly with a low speed drill equipped with a jiffler type mixing prop for approximately three (3) minutes.

**APPLICATION:** Apply the mixed **DURAGUARD 520** by brush, roller or medium pressure spray equipment at 80 square feet per gallon. The second coat of **DURAGUARD 520** at 80 square feet per gallon can be applied as soon as the first coat is tack free. **DURAGUARD 520** must be recoated within 6 hours when it is exposed to direct sunlight to avoid additional surface preparation. Interior applications at room temperature must be recoated within 72 hours to obtain proper intercoat adhesion.

In order to prevent curing problems, air movement and / or ventilation must be maintained during installation of the product and until the system is thoroughly cured. This will prevent high concentrations of styrene from inhibiting or retarding the cure of the system.

## CLEANUP

Before system components dry and set, clean tools and equipment with MEK or lacquer thinner. Do not use acetone.

## LIMITATIONS

- Do not apply to wet or damp substrates.
- Exposure of mixed material to excessive heat may cause premature gelling and significantly reduce working time.
- Do not apply **DURAGUARD 520** if temperature is below 50°F (10°C) or above 92°F (34°C). Temperature at time of application must be 5° higher than the dew point. For additional data on good coating practice, consult SSPC and/or NACE.

- 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.
- All vinyl ester resins have a minimal shelf life. Allow sufficient lead time when ordering and do not order more material than can be used within three months of date of manufacture.

## STORAGE

Store factory sealed containers of unmixed material between 50°F (10°C) and 75°F (23.8°C) away from direct sunlight or sources of heat. Shelf life of properly stored material is 3 months from date of manufacture.

## CAUTIONS

**FLAMMABLE LIQUID:** Keep away from heat or open flames. Use with adequate ventilation. May cause skin, eye and respiratory tract irritation. Do not take internally. Keep out of reach of children.

**ORGANIC PEROXIDE/COMBUSTIBLE:** Keep away from all sources of heat including sunlight. Causes eye, skin and respiratory tract irritation. May cause allergic skin reaction. 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.