



ChemMasters

DURAGUARD 520/530

HIGH PERFORMANCE VINYL ESTER COATINGS

SPECIALTY CONSTRUCTION PRODUCTS

PRODUCT DATA

DESCRIPTION

Duraguard 520 and 530 are two-component, 100% solids, flake-filled vinyl ester coating systems with superior levels of chemical resistance, adhesion, tensile and flexural strengths. Duraguard 520 is a 15-20 mil mil coating while Duraguard 530 is a high build system applied at 30 mils per coat for enhanced chemical resistance in extremely harsh environments.

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
- 100% reactive resin equates to low shrinkage
- 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

SUGGESTED SYSTEM COMPONENTS

Primer: Duraguard 500, vinyl ester primer with catalyst

Topcoat Option 1: Duraguard 520, high performance vinyl ester coating with catalyst

Topcoat Option 2: Duraguard 530, high build, high performance vinyl ester coating with catalyst

TECHNICAL DATA

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

Solids	100%
V.O.C. content	0 gm/L
Compressive Strength (ASTM C-579)	12000 psi 83 MPa
Tensile Strength (ASTM C 307)	2600 psi 18 MPa
Tensile Elongation (ASTM D 790)	3-5%
Flexural Strength (ASTM C-580)	3200 psi 22 MPa
Gel Time (150 ml/0.5 cup)	50°F 10°C 60 minutes
	70°F 21°C 45 minutes
	90°F 32°C 25 minutes

CHEMICAL RESISTANCE

	Concentration %	Max. °F. °C.
Acetic Acid	75	150 65
Acetone	10	180 82
Ethyl Alcohol	95	80 27
Benzene	100	100 38
Brake Fluid		120 49
Brass Plating		180 82
Chromic Acid	20	150 65
Citric Acid	100	210 99
Ethanol	95	100 38
Formic	98	100 38
Hydraulic Fluid	100	180 82
Hydrochloric Acid	37	180 82
Hydrofluoric Acid	20	100 38
Jet Fuel (JP-4)	100	180 82
Nitric Acid	20	150 65
Phosphoric Acid	100	210 99
Silver Plating Solution		180 82
Sodium Hypochlorite	5.25	180 82
Sulfuric Acid	75	120 49
Turpentine	100	150 65
Xylene	100	120 49
Zinc Plating Bath		200 93

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



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PACKAGING

Duraguard 520 and 530 are available in 2 U.S. gallon/ 7.6 Liter or 5 gallon/19 liter units which are shipped 36 per pallet, shrink wrapped. Duraguard 500 catalyst is packed in 1 U.S. gallon/3.8 liter cans. Catalyst must be ordered separately.

Estimating Guide	Ft. ² /Gal.	M ² /L
Duraguard 500—8 mils	175	4.29
Duraguard 520—15 mils	100	2.45
Duraguard 530—30 mils	45-50	1.1-1.22

DIRECTIONS

SURFACE PREPARATION: This is the most critical step in any coating application. For complete surface assessment and preparation guidelines, refer to ChemMasters Technical Bulletin, *Guide to Floor Preparation*, or contact your local ChemMasters representative.

PRIMING: Prime clean, prepared substrate with Duraguard 500 before application of Duraguard 520 or 530. See Duraguard 500 technical data sheet for full instructions on mixing and application.

MIXING: Duraguard 520 and 530 must be mixed prior to application. Add the appropriate amount of catalyst based on minimum surface temperature to the resin.

50°F	4 oz	10°C	120 ml
70°F	3 oz	21°C	90 ml
90°F	2 oz	33°C	60 ml

Mix thoroughly with a low speed, high RPM drill equipped with a jiffler type mixing prop for approximately three (3) minutes.

APPLICATION:

Duraguard 520

Apply the mixed Duraguard 520 by brush, roller or medium pressure spray equipment. For best adhesion, Duraguard 520 should be applied **before** the primer has reached final cure.

Duraguard 530

Apply the mixed Duraguard 530 by roller or notched squeegee. For best adhesion, the Duraguard 530 should be applied **after** the primer has reached final cure, 1.5 to 8 hours depending on temperature and humidity.

Thin Film Tack Out	50°F 10°C	12 hours
	70°F 21°C	4-5 hours
	90°F 32°C	3 hours

Maximum recoat time without additional surface preparation

50°F 10°C	96 hours
70°F 21°C	48 hours
90°F 32°C	24 hours

CLEANUP

Before system components dry and set, clean tools and equipment with xylene or xylol.

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 520/530 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.