



ChemMasters

DURAGUARD 425 mMa

PIGMENTED, HIGH BUILD METHYL METHACRYLATE
TOP COAT

SPECIALTY CONSTRUCTION PRODUCTS



PRODUCT DATA

DESCRIPTION

Duraguard 425 mMa is a three-component, high build, methyl methacrylate (mMa) coating. The three basic components that make up **Duraguard 425 mMa** are **Duraguard 425 Resin**, **Duraguard 425 Pigment** and **Duraguard mMa Catalyst**. When a clear methyl methacrylate topcoat is desired, use **Duraguard 420 mMa**.

An accelerator additive, **Duraguard mMa Accelerator** is available for use in cold temperatures (below 40°F).

USES

- **Duraguard 425 mMa** is used as a topcoat (wearing surface) for a methyl methacrylate flooring system. It can be applied directly of the primer coat (**Duraguard 400 mMa**) or over a body coat of **Duraflow 450 mMa** or **Duraflow 455 mMa**.
- Surfaces subject to high levels of abrasion, impact loading including industrial, commercial and warehousing applications
- Food or chemical processing plants subjected to high levels of thermal cycling, aggressive cleaning and chemical attack.

ADVANTAGES

- Rapid curing (less than 1 hour) and recoat window for minimal downtime
- Can be applied at temperatures as low as -20°F
- Excellent resistant to deterioration or discoloration from ultraviolet light (UV) exposure
- Superior resistance to alcohols, petroleum products and aromatic solvents
- Clear and pigmented formulations available.

TECHNICAL DATA

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

USDA approved for incidental contact at federally inspected meat, fish and poultry plants

Density 8.40-8.60 lbs./gal

Viscosity (ASTM D-2393) 200-300 cps

Solid 100%

Water Absorption (ASTM D-570) <0.1%

Compressive Strength (ASTM C 109)
7500 psi 52MPa

Tensile Strength (ASTM C 307) 2100 psi 14 MPa

Flexural Strength (ASTM C 348) 3100 psi 21 MPa

CHEMICAL RESISTANCE

Distilled water R Saltwater R

Alkalies

Ammonia 10% R Caustic Soda 50% R

Potassium Hydroxide 50% R

Acids

Acetic Acid 10% R Acetic Acid 30% R

Chromic Acid 40% R Citric Acid 30% R

Formic Acid 10% R Formic Acid 30% C

Hydrochloric concentrate R Lactic Acid 30% R

Nitric Acid 10% R Nitric Acid 30% C

Oxalic Acid 10% R Phosphoric Acid 40% R

Sulfuric Acid 50% R

Salts/Salt Solutions

Ammonium Chloride R Ammonium Sulfate R

Calcium Chloride R Potassium Chloride R

Sodium Chloride R Sodium Carbonate R

Sodium Hypochlorite R Sodium Sulfate R

Petrochemicals

Crude Oil R Diesel Fuel R

Gasoline, high octane R Kerosene R

Mineral Oil R Paraffin Oil R

Petroleum R White Spirits R

Solvents

Acetone N/R Benzene C

Ethanol 30% R n-Heptane R

Isopropyl Alcohol C Perchloroethylene R

Phenols R Styrene R

Turpentine R Toluene C

Xylene C

Miscellaneous

Vegetable Oils R Animal Fats R

Fruit Juices R Vegetable Juices R

Wine R

Key: R= Recommended, C= Consult ChemMasters technical service staff.

Application Temperature -20 to 95°F (-18 to 35°C)



ChemMasters

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TECHNICAL DATA CONTINUED

Pot Life	10-40 minutes
Cure Time	20-60 minutes

PACKAGING

Duraguard 425 Resin is available in 5 gallon (18.9 Liter) pails or 55 gallon (207.9 liter) drums. **Duraguard mMa Catalyst** is packaged in 5 pound (2.3 kg) pails packaged 4 to a case or 55 pound (24.9 kg) boxes. **Duraguard 425 Pigment** is packaged in quart cans. **Duraguard mMa Accelerator** is packaged in 1 gallon (3.7 liter) pails. Resin, catalyst and accelerator are sold separately.

ESTIMATING GUIDE

15 mils	100 Ft. ² /gal	2.5 M ² /L
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DIRECTIONS

SURFACE PREPARATION: The surface must be primed with **Duraguard 400 mMa** and clean. For complete surface assessment and preparation guidelines, refer to ChemMasters Technical Bulletin, *Floor Preparation Guide*, or contact ChemMasters technical service staff. Allow any previous applications of methyl methacrylates to dry for 1-2 hours, before applying **Duraguard 425 mMa**.

MIXING: Add the **Duraguard 425 Pigment** to the **Duraguard 425 Resin** (1 or 2 quarts of pigment depending on the color per 5 gallons of resin). Mix until thoroughly blended. The amount of **Duraguard mMa Catalyst** required for each gallon of **Duraguard 425 Resin** is dependant on the surface temperature of the floor. Mixing too much catalyst will cause the material to set extremely quickly and may result in improper bonding to the previous coats of methyl methacrylate. Insufficient catalyst may prevent proper curing Refer to Duraguard mMa Mixing Chart to ensure proper catalyst dosing. **Duraguard mMa Accelerator** is used in applications at temperatures below 40°F. Refer to Duraguard mMa mixing chart for details on dosing of these components.

Duraguard 425 mMa must be thoroughly mixed before application. Add the appropriate amount of **Duraguard mMa Catalyst** for each gallon (liter) of **Duraguard 425 Resin**. Add the appropriate amount of **Duraguard mMa Accelerator** if applicable. Mix for 30 seconds using a mechanical drill equipped with a spiral type mixing prop. Take care not to incorporate excess air into the mix.

APPLICATION: Immediately pour all of the mixed **Duraguard 425 mMa** onto the primed concrete or previous methyl methacrylate coats, spread with a serrated squeegee maintaining a 15 mil wet film thickness, then backroll into place

with a short nap, solvent resistant roller.

RECOAT: **Duraguard 425 mMa** can be recoated once the whole floor is dry to the touch, usually within one to two hours after placement.

CLEANUP

Clean tools and equipment before material dries and sets with xylene or xylool.

LIMITATIONS

- **Duraguard 425 mMa** is not designed for application in direct sunlight. The topping may blister or pinhole due to out gassing of air in the concrete and high substrate temperatures.
- **Duraguard 425 mMa** is exothermic, generating a large amount of heat when initially mixed. Do not mix more than 2 gallons of **Duraguard 425 mMa** at a time. A large mass of material can ignite. Immediately after mixing pour all of the material onto the floor to dissipate the heat.
- Exposure to excessive heat may cause premature gelling and reduce the working time.
- **Duraguard 425 mMa** is extremely fast setting. Floors must be completely prepared and ready before material is mixed.
- Good ventilation of the repair area is strongly recommended to aid in the thorough cure of **Duraguard 425 mMa**.

STORAGE

Store factory sealed containers of unmixed material at 50°-75°F (10°-24°C) temperatures away from direct sunlight and sources of heat. Temperatures in excess of 75°F (24°C) cause premature aging of the material. Shelf life of properly stored material is one year from date of manufacture.

CAUTION

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: 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 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.