



ChemMasters®

SPECIALTY CONSTRUCTION PRODUCTS

Duraguard HM Sealer

Low Viscosity High Modulus
Epoxy Sealer and Crack Filler

P R O D U C T D A T A

DESCRIPTION

ChemMasters' Duraguard HM Sealer is a 100% solids, very low viscosity, high modulus epoxy sealer, and crack filler. It is moisture insensitive and can be gravity fed on horizontal surfaces or pressure injected into vertical and overhead concrete and masonry for structural repairs.

USES

- Interior, exterior, horizontal, vertical, or overhead crack sealing applications
- Sealing severely cracked or extremely porous horizontal surfaces, bridge decks, parking garages, ramps, runways, and industrial floors
- Crack injection repairs of beams, walls, single or double T's, cast in place and precast concrete members, repair of carbonated, dusting, concrete surfaces
- Slabs on grade, pan floors, foundation and retaining walls, delaminated surfaces of concrete decks, repair mortars
- Accepts sand to provide slip resistant finish

ADVANTAGES

- Extremely low viscosity for increased depth of penetration
- Exceptional flexural and slant shear strengths for sound structural repairs
- Fills hairline cracks, pores, and capillaries to effectively seal horizontal concrete surfaces for protection against liquid borne salts and contaminants
- May be thickened with sand to form mortar for economical structural repair of cracks over 0.25 inch (6.35 mm) wide
- Moisture insensitive formulation allows repair of damp surfaces and cracks
- High compressive and tensile strengths for durable repairs of load bearing precast members and cast in place foundations and walls

Packaging	
4 gallon case:	Part Number
3x1 gallon Part A Resin	F 5080.04
1x1 gallon Part B Hardener	

TECHNICAL DATA

- Complies with National V.O.C. Emission Standards for Film Forming Waterproofing Architectural Coatings, Federal EPA Regulations 40 CFR Part 59 <400g/L
- Meets ASTM C 881 Grade 1, Class C, Type III & IV

Physical Properties	
Mixed Viscosity	< 90cps
Mix Ratio	3 gal of A to 1 gal B (as packaged)
Cured Appearance	Clear to slightly milky
Recoat Time	24 hours
Minimum working surface temperature	50°F (10°C)
ASTM D 638 Tensile Strength	7,000 psi (48 MPa)
ASTM D 638 Tensile Elongation	3 to 7 %
ASTM D695 Compressive Strength	10,500 psi (72 MPa)
ASTM C 882 Slant Shear/Bond Strength	1,500 (10 MPa)
ASTM D 790 Flexural Strength	9,000 psi (62 MPa)
V.O.C. Content	<50 g/L

Estimating Guide	
1st coat	100 to 175 ft ² /gal (2.5 to 4.0 m ² /L)
2nd coat	150 to 300ft ² /gal (3.7 to 7.4 m ² /L)

Pot Life* for maximum working time pour out into thin film	
@ 70°F (21°C)	~ 25 minutes
@ 100°F (38°C)	~15 minutes

* in pot working time approx 25 minutes poured in thin strips working time about 40 minutes.



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DIRECTIONS

Surface Preparation: All concrete must be fully cured and aged a minimum of 28 days before **Duraguard HM Sealer** application. Surfaces must be free of all materials that would interfere with adhesion such as curing and sealing compounds, paints, oil, grease etc. Mechanical texturing or removal of previous coatings is preferred over chemical methods. Hairline cracks should be vacuumed or blown free of dust and dirt with oil free compressed air.

Mixing:

Duraguard HM Sealer is a two component epoxy that must be mixed prior to use. For optimum results, condition components to minimum 60°F (15°C) prior to blending. Use entire contents; do not use partial containers.

**Duraguard HM Sealer Epoxy Paste:*

Add up to 6 gallons of fumed silica per 3 gallon unit of Part A Duraguard HM Sealer, mix until fully blended and the material is at a mayonnaise consistency.

When mixing a 4 gallon unit, pour all of the **Part B Hardener** into the **Part A Resin**. Carefully scrape the bottom and sides of **Part B** container to ensure all material is used. **(It is critical to accurately measure components when using partial containers. Maintain a 3:1 Part A to Part B by volume ratio.)** Mix thoroughly for 2 to 3 minutes using a low speed mechanical drill and jiffler type mixing prop. Avoid incorporating air into the mixture. Do not leave mixed **Duraguard HM Sealer** in the mixing vessel. Storing mixed material in mass quantity will cause the material to thicken quickly and make the product unusable.

Application:

Temperature Range:

Ambient 60 to 90°F (15 to 32°C) Surface 50°F (10°C)

Hairline Cracks or Distressed Surfaces: immediately pour mixed material onto the slab in a ribbon pattern. Once on the slab in a thin film the product will remain at a low viscosity for approximately 40 minutes. Use a straight blade squeegee, roller, or push broom to distribute **Duraguard HM Sealer** evenly across slab. Allow sealer to penetrate into the surface. To obtain a uniform surface very porous or cracked concrete may require a second application of **Duraguard HM Sealer**. The second coat should be applied within 24 hours.

For a skid resistant surface immediately after applying **Duraguard HM Sealer** broadcast 0.8 to 1lb (0.36 to

0.45kg) of sand per square yard (0.84m²) onto coated surface. Finish by back rolling with paint roller to encapsulate sand. Apply sand before the sealer is tacky.

Cracks up to 0.25" (35 mm) wide: fill substrate with neat **Duraguard HM Sealer** to ensure proper bond. Spread **Duraguard HM Sealer Epoxy Paste** over the primed cracks taking care to fill all voids and maintaining full contact with the substrate.

Vertical and Overhead Pressure Injected: Insert injection ports at regular intervals along crack. Anchor ports and seal cracked surfaces with **Polytops Fast Set** or **Duraguard HM Sealer Epoxy Paste***. Follow dispensing equipment manufacturer's recommendations for calibration and mixing.

Floor Overlays/Patching: Prime repair area with neat **Duraguard HM Sealer** to ensure a successful bond. Blend clean dry sand into prepared **Duraguard HM Sealer** to develop a mortar consistency. Place mortar onto primed area and finish with trowel.

Clean Up: Immediately after use, clean tools and equipment with xylene, xylol, or glycol ether PM.

LIMITATIONS

- Avoid applying **Duraguard HM Sealer** during times of extreme heat. Application should be scheduled for early morning or late afternoon when ambient and substrate temperatures are at their lowest.
- **Duraguard HM Sealer** is intended for use at surface temperatures above 50°F (10°C).
- Do not apply where moisture will penetrate surface

STORAGE

Store unmixed material in cool dry place out of direct sunlight and heat @ 50°F (10°C) to 75°F (24°C) in tightly closed containers. Shelf life is 2 years from date of manufacture.

CAUTIONS

Corrosive liquid: Corrosive to eyes. Do not take internally.
KEEP OUT OF REACH OF CHILDREN.

Make certain that the most current versions of the Product Data Sheet and Safety Data Sheet are being used. Go to WWW.chemmasters.net or contact ChemMasters Technical Service at 1-800-486-7866 to verify the most current version.

Proper application is the responsibility of the user. ChemMasters can only make technical recommendations and cannot provide quality control on the jobsite.

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 as expressly 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.