



MasterShield[®] CRU

Chemical Resistant Urethane

**Chemical Resistant Aliphatic Polyester Urethane
Coating**

PRODUCT PRESENTATION

MasterShield CRU 70
MasterShield CRU 95
MasterShield CRU 100

- **Two Component**
- **Gloss, Satin & Abrasive Finishes**
- **Ultra-Violet & Light Stable**
- **Clear & Colored-Pigmented**
- **Impact & Scratch Resistance**
- **Excellent Chemical Resistance**
- **VOC & SCAQMD Compliant**
- **Low or No-Odor Versions Available**

MasterShield CRU is always applied as a finish coat over an epoxy primer such as EPS or other Polymerica epoxy coatings. An excellent finish coating for many Polymerica base epoxy coatings systems including: EPS, IEC, CRC, MVP-C or MVP. Enhances the beauty of MQB and Granitech installations.

Typically used in aircraft hangars, products show rooms, restrooms, aisles, showrooms and warehouses. CRU can also be applied over River Rock Applications. Enhance the appearance when the CRU applied as a satin or pigmented finish.

MasterShield CRU Coating Systems comply with South Coast Air Quality Management District (SCAQMD) Rule 1113, allowable volatile organic content (VOC) coating and sealers in the following California Counties: Los Angeles, Orange, Riverside and San Bernardino. MasterShield CRU is VOC compliant in the United States and Canadian Provinces. MasterShield CRU Coating Systems conform to U.S. General Services Administration Specification A-A-50542 Coating Systems for reflectivity, slip resistance and chemical resistant urethane for maintenance facility floors.

CONDITIONS

- Install between 50°F (10°C) and 85°F (29°C)
- Install when Relative Humidity is below 75%
- Install when Temperature is 5°F above the Dew Point and rising
- Install only if Moisture Vapor Emission Rate does not exceed 3.0 lbs/1kft²/24 hours per ASTM F1869. (See INSTALLATION GUIDELINES)

TYPICAL PERFORMANCE PROPERTIES*

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|---|------------|
| 1. Gloss Index, (Clear) 60°
ASTM D523 | 95+ |
| 2. Adhesion to Primed Concrete
ASTM D4541 | 400 psi |
| 3. Tensile Strength
ASTM D882 | 5,000 psi |
| 4. Tensile Elongation
ASTM D882 | 12% |
| 5. Abrasion Resistance
ASTM D4060, CS 17 Wheel,
1000 gm, 1000 cycles | 30 mg/loss |
| 6. Flexibility
ASTM D1737, (180° Mandrel Bend) | Passes |
| 7. Pencil Hardness
ASTM D1211 | 3H |
| 8. Hardness (Shore D)
ASTM D2240 (over Epoxy Coating) | 80-85 |
| 9. Fungi Resistance
ASTM G21 | Passes #1 |
| 10. Chemical Resistance (Contact Polymerica for specific
chemical resistance properties) | |

* CRU 95 Tested at 75°F ± 2°F & 50% RH ± 5%

PACKAGING

MasterShield CRU Coating Systems are available in units with 5 gallon pails and 1 gallon cans. MasterShield CRU 70% & 95% solids coating systems are 2 to 1 by volume. The 100% solids version is 1.5 to 1 by volume.

25 Gallon minimum order for prepigmented CRU products. Add color pigment, ECC, on site by the addition of one Quart of ECC to a total volume of 3 gallons of mixed CRU. Customer assumes responsibility for the quantity of ECC required to achieve the specific color coverage desired. Satin is available in CRU 70 only. White Aluminum grit for the abrasive non-skid filler is supplied in quart containers only. Generally 1 Pint of the grit is added per gallon of mixed CRU. Customer assumes the responsibility of Aluminum Grit or other abrasive that's added or used in the coating system.

Contact Polymerica with specific questions on unit size, product and pricing.

INSTALLATION GUIDELINES

Moisture Vapor Transmission test per ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor using Anhydrous Calcium Chloride, must not exceed 3.0lbs/1kft²/24 hours. Moisture Vapor Transmission test per ASTM F2070 Standard Test Method for Determining Relative Humidity in Concrete Floor Substrates Using in Situ Probes, must not exceed 80% RH.

Note: If test results exceed limits, Consider Polymerica Moisture Vapor Passivator (MVP) and Universal Surfacer as base coats. Contact Polymerica Technical Department to discuss specific details.

Preparation: A. Concrete Substrate must be prepared in accordance with ICRI CSP-2 (International Concrete Repair Institute, Concrete Surface Profile). To level an aggressive profile, Polymerica Self Leveling Epoxy (SLE), can be used as a “fill coat” to fill the depressions of a rough concrete surface profile.

B. Finish coating over decorative and function epoxy coatings and surfacing should be installed within the recommended recoat window. (Contact Polymerica Technical Department for guidelines). If the surface is contaminated, lightly sand or screen, remove dust by vacuuming and tack wipe with clean Xylene or MEK.

Mixing: Observe and follow all precautions on Material Safety Data Sheets and labels prior to installation. Mix Ratio: 2A:1B for the 70% and 95% solids. Mix Ratio: 1.5A to 1B for 100% solids product. Premix each component with a Jiffy type impeller at slow speed for two minutes prior to combining the components. Mix for an additional two minutes after the two components are combined. Do not mix air into product.

Induction Period: There is generally no induction period required. Add ECC, if applicable to the Part A only prior to mixing in the B component. a short soak in period is recommended of 10 to 15 minutes is recommended. Do not add the B side until this Apply immediately after mixing.

Application: Apply MasterShield CRU over any epoxy primer, epoxy coating or Universal Surfacer application. See the specific data sheets for the preparation and application of these products and systems. Pour CRU as a ribbon and distribute with notched squeegee and backroll with shed and solvent resistant 3/8 inch roller cover. Apply at 300 to 400 sq. ft. per gallon depending on project and mil thickness required. Always pour into the previous coating to minimize lap lines.

Recoat Window: It is always recommended to sand, screen, vacuum and tack wipe to remove any surface dirt or debris. Use a clean, lint free rag or towel with Xylene or MEK. Allow solvent to evaporate before recoating. This procedure will help avoid window recoat issue and avoid intercoat adhesion failure.

It is recommended to recoat between 10 and 14 hours of the previous coating application. If recoating earlier, test to insure surface is dry to touch, accept thumb or key print. Wear protective shoes. If wearing spikes surface should be sufficiently cured to avoid marking or damaging the surface because of insufficient cure.

Cure: For light foot traffic 24 hours at 75°F (24°C) and five days at 75°F (24°C) for full chemical resistance. Humidity, substrate and air temperature may shorten or lengthen cure time.

SAFETY

Always read and follow label, Data Sheet and Material Safety Data Sheets. MSDS are available from Polymerica and should be consulted prior to use of the product. These products are intended for use by professionals only. Keep away from children and those not trained in the use and potential hazards involved. Workers should wear gloves, goggles and body covering clothing during mixing and application. Clean with soap and water.

WARRANTY

POLYMERICA warrants its products to conform to its manufacturing standards. POLYMERICA will replace or refund the purchase price of non-conforming products at the seller's option; such remedy being exclusive of all others and sole remedy available to the buyer. Buyer hereby expressly waives claim to additional damages. Any claim under this warranty must be made in writing within 7 days of discovery of noncompliance and no later than one year from the date of delivery of product. No representative, distributor or applicator of POLYMERICA products is authorized to modify product data or warranty.

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