



MiraThane 100 CRU

Product Technical Data Sheet

MiraThane 100 CRU is a state-of-the-art, two-component, solvent-based, aliphatic polyester-urethane coating and sealer. Exhibiting excellent UV-stability, abrasion and wear resistance, chemical resistance, stain resistance and superior cleanability, **MiraThane 100 CRU** is ideal for use as a topcoat or finish coating over epoxy, cementitious and other floor/wall coating systems. It is also an outstanding choice as the primary protective coating and wear surface for properly primed concrete surfaces.

Unlike many other coatings and sealers, **MiraThane 100 CRU** will provide outstanding performance under the most demanding service conditions which are characterized by abusive traffic and impact, aggressive chemical contact, corrosive fumes and frequent wash-downs. **MiraThane 100 CRU** is available in non-yellowing, ultra-low VOC, clear and pigmented formulations with excellent prolonged gloss retention and weathering characteristics.

WHERE TO USE

- Primary protective coating and sealer for concrete.
- Protective finish coat for cementitious overlays & micro-toppings.
- Optional topcoat or finish for epoxy trowel and broadcast systems.
- Chemical processing, pulp and paper plants.
- Water and wastewater treatment facilities.
- Food and meat processing plants.
- Industrial, manufacturing and commercial flooring.
- Aircraft, aeronautical and automotive facilities.
- Marine structures and environments.
- Restaurants, cafeterias and food service flooring.

ADVANTAGES

- High impact and wear resistance.
- Excellent chemical, stain and abrasion resistance.
- Displays superior UV resistance and stability.
- Resistant to hot tire pick-up.
- VOC < 100 g/l - Conforms to most air quality jurisdictions.
- Acceptable for use in USDA facilities.
- High gloss finish and gloss retention.
- Excellent for interior and exterior exposure conditions.
- Accepts synthetic media for slip resistance.
- Minimizes floor care and maintenance costs.

THEORETICAL COVERAGE RATES

300-400 sq. ft. per gal.

PACKAGING and COLORS

MiraThane 100 CRU Clear and Pigmented:

Kit Sizes: 2-gallon, 10-gallon

Component A: 1-gal, 5-gal units

Component B: 1-gal, 5-gal units

Available in clear, gray and white standard colors

MIX RATIO

MiraThane 100 CRU Clear and Pigmented:

Comp. A: Comp. B = 1:1 by volume.

SHELF LIFE AND STORAGE

One year from the date of manufacture as long as containers remain unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

TYPICAL PHYSICAL PROPERTIES @ 75F (24C)

Solids Content	62%		
Viscosity	460 cps		
Pot Life 50% RH (1 gallon mass).....	Approximately 30 minutes		
Recoat Time	7hrs. min. - 24 hrs. max.		
Thermal Shock ASTM D1211*	Good		
Flexibility ASTM D1737	Passes 180 degree bend. 1/8" Mandrel		
Tensile Strength ASTM D412	4,000 psi		
Elongation ASTM D882	10%		
Taber Abrasion ASTM D4060.....	30 mg loss (CS17 Wheel. 1000g Load. 1000 Cycles)		
Impact Resistance ASTM D2794	Direct.....160in/lbs. Reverse.....160in/lbs		
Pencil Hardness ASTM D1211*	3H		
Gloss, 60 deg. ASTM D823	95+		
Coefficient of Friction ASTM F1679	Dry 0.62		
Microbial Resistant ASTM G21	Passes Testing 1		
Chemical Resistance (Refer to Chemical Resistance Chart for Entire List)			
Gasoline	No Effect	Isopropyl Alcohol	No Effect
Kerosene	No Effect	Hydrogen Peroxide	Slight Stain
Skydrol	No Effect	Hydrochloric Acid 25%	No Effect
Hydraulic Fluid	No Effect	Sodium Hydroxide 50%	No Effect

OVERVIEW OF INSTALLATION STEPS

• **Surface Preparation** – All surfaces must be clean, sound, dry and free from any bond inhibiting substances including, but not limited to, grease, oil and any other contaminants or loosely adhered materials. For concrete substrates, a minimum surface profile of a CSP-2 or higher is required depending on overall substrate conditions and coating requirements.

• **Mixing** – **MiraThane 100 CRU** polyurethane resin components must be mixed mechanically using a low-speed drill (300-450 rpm) until blended with a clean "Jiffy-type" or similar Miracote-approved mixing paddle. First pre-mix both "A" and "B" components individually before blending together. Empty entire contents of component A and component B into a clean mixing vessel. Mix for approximately 3 minutes keeping the mixing head fully immersed at all times. At least once when mixing, stop to scrape down the sides and bottom of the pail to ensure thorough blending of both components. If not mixing full units, each component must be proportioned precisely by volume by adding 1 (one) part of the "A" to 2 (two) parts of the "B" component. Once completely mixed and in observance of pot life, dispense material immediately from the pail to the substrate. Due to the potential for incompletely mixed material clinging to the inside of the mixing pail, avoid scraping polyurethane from the pail to the substrate while applying the product.

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OVERVIEW OF INSTALLATION STEPS (continued)

Application – Pour out mixed **MiraThane 100 CRU** in a large ribbon across the properly primed concrete surface or other type of substrate. Spread evenly with a flat squeegee, and back-roll with a high quality, phenolic core, industrial grade 3/16” to 1/4” maximum nap roller to achieve mil consistency.

FOR BEST RESULTS

- Always install a minimum 4’ by 4’ test area site mock up for approval of acceptable color, texture, finish, adhesion, and any other critical requirement acceptable to the owner prior to proceeding with the installation.
- Verify and download current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guides (IG) at www.miracote.com.
- Protect materials at all times from excessive heat and cold, and pre-condition to room temperature as necessary.
- Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by Miracote representatives are only for the purpose of making recommendations, and do not assume any liability for supervision or quality control.
- Measure surface and ambient temperatures to ensure the material is only applied when temperatures are 50°F (10°C) and rising, and less than 90°F (32.2°C) during placement and cure time.

LIMITATIONS

- Installed product forms a vapor barrier after cure.
- Not intended for use on exterior concrete slabs-on-grade.
- Minimum/maximum ambient and substrate temperatures of 50°F (10°C) or 90°F (32.2°C) respectively, are required during application.
- Concrete must be minimum age of 21-28 days, depending on curing and drying conditions.
- Do not apply under the threat of rain within 24 hours or if temperature is less than 5°F above dew point.
- Do not apply on damp substrates.
- Not for use within SCAQMD jurisdictions.
- Maximum allowable moisture vapor transmission (MVT) of 3.0 lbs./1000 sf./per 24 hr. period per ASTM F1869 (CaCl Testing).
- Maximum allowable moisture vapor transmission (MVT) of 75% RH as per ASTM F2170 (RH-Relative Humidity Testing).
- Use MiraPrime MVERS epoxy moisture mitigation primer over concrete substrates that have MVT emissions that exceed these limits.

LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICES ARE MET.

Crossfield Products Corp. warrants to the purchaser of its products that such products are free from manufacturing defect. Crossfield does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield’s obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product’s shelf life, by the original purchaser and which Crossfield’s examination shall disclose to Crossfield’s satisfaction to be thus defective.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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