



MiraThane MCU

Product Technical Data Sheet

MiraThane MCU is a high-solids, low VOC, low odor, highly abrasion resistant and high performance aliphatic polyurethane coating. Exhibiting excellent UV-stability, abrasion and wear resistance, chemical resistance, stain resistance and superior cleanability, **MiraThane MCU** 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.

WHERE TO USE

- High performance topcoat for protective coating systems.
- Protective finish coat for cementitious overlays & micro-toppings.
- Optional topcoat or finish for epoxy trowel and broadcast systems.
- Laboratories, pharmaceutical health care facilities.
- Manufacturing and warehouse flooring.
- Educational buildings, museums, and stadiums.
- Retail, restaurants, cafeterias, and food service flooring.
- General protective coating for high traffic service conditions.

ADVANTAGES

- High impact and wear resistance.
- Excellent chemical, stain, and abrasion resistance.
- Displays superior UV resistance and stability.
- VOC < 50 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.
- Provides attractive clear orange peel finish.

THEORETICAL COVERAGE RATES

350-450 sq. ft. per gal.

PACKAGING and COLORS

Kit Sizes: 1-gallon,
Component A: 1-qt.
Component B: 1-gal, (short-filled)
Available in clear, gray and white

MIX RATIO

MiraThane MCU Clear:
Comp. A: Comp. B = 1:3 by volume.

SHELF LIFE AND STORAGE

Six months 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	96%		
Pot Life 50% RH	Approximately 45 minutes		
Recoat Time	8hrs. min. - 24 hrs. max.		
Tensile Strength ASTM D2370	5,000 psi		
Elongation ASTM D2370	4%		
Taber Abrasion ASTM D4060	15 mg loss (CS17 Wheel. 1000g Load. 1000 Cycles)		
Impact Resistance ASTM D2794	Direct 160in/lbs. Reverse 160in/lbs.		
Gloss, 60 deg. ASTM D2370	85+		
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.
- **Mixing** – **MiraThane MCU** 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 3 (three) 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.
- **Application** – Pour out mixed **MiraThane MCU** 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.

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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

- Not intended for use directly over concrete substrates.
- 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.
- 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.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.



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**MIRATHANE MCU
10-21-2020**