

**Coating Description:** RCT Direct-to-Metal Urethane (DTMU)

**Application Description:** Metal Tank Exteriors

**Product Description & Suggested Uses:**

RCT DTMU is a high-build isocyanate cured acrylic urethane for industrial exterior direct-to-metal (DTM) applications requiring excellent weathering, corrosion, and chemical resistance. Sufficient film build can be achieved with a single coat application. Typical uses include railcar exteriors, water towers, storage tanks, and structural steel.

**Surface Preparation:**

- In accordance with SSPC-SP1, remove all oil and grease from the surface.
- In accordance with SSPC-SP10, abrasive blast to a minimum near white to obtain a 1.5 to 2.5 mil blast profile. For less severe services and repair, SSPC-SP6 may be used for preparation.
- With a blast profile over 2.5 mils, a thin first coat should be applied followed by a second finish coat. Pinholes may occur if this process is not followed on high blast profiles (>2.5 mils).
- Surface temperature of the tank should be 50°F minimum. Do not paint unless metal surface is at least 5°F above the dew point.

**Mixing and Thinning/Reducing Instructions:**

- All containers should be thoroughly mixed and checked for uniformity.
- Mix 4 parts DTMU Component A to 1 part Catalyst Component B. When coating temperatures are below 60°F, allow an extra 10 minutes sweat-in time after mixing to prevent possible film defects.
- For spray applications, thin from 0% to 20% with RCT recommended reducer.
  - o Manual Mixing - Reducer should only be added after components A & B are mixed to assure proper mix ratio and performance.
  - o Reducer in plural component equipment should be added equally to components A & B before mixing. Use heaters to obtain 90-130°F at gun. Do not exceed 130°F.
- Use of reducers other than those approved by RCT may affect product performance and void product warranty, whether express or implied.
- All spray equipment must be thoroughly cleaned. Paint line should be free from old paint and other contaminants.

**Equipment:**

- Spray equipment from Graco, Devilbiss, or Binks is recommended.
- Minimum specifications for airless spray equipment:

Pump Ratio	45 to 1 min
Air Pressure Output	3000 psi min
GPM Output	3.0 gal/min
Hose	3/8" ID min
Tip Size	.017" - .021"
Heater	200°F min (if applicable)

**Application:**

*Repair Facilities* - tack coating of weld seams, pitted areas (if any) and difficult to get areas prior to application of coating is recommended.

*New Tank Facilities* – tack coat only if needed.

- Spray tanks to a dry film thickness of 4-6 mils not to exceed 12 mils dry film thickness.
- Pot Life is 3 hours at 75°F and shorter at higher temperatures.

**Dry Times at Recommended Dry Film Thickness (DFT):**

Dry to Touch	3-4 hours @ 75°F
Dry to Handle	6-7 hours @ 75°F

If tank is to be force-dried in an elevated temperature oven, allow for a 1-hour minimum flash-off @ 75°F before moving tank into oven.

**Blistering may develop:**

- With insufficient flash-off time before a force-dry.
- If the dry film thickness is higher than recommended prior to a force-dry.
- If the ramp-up in temperature is too rapid.

Discoloration may occur if exposed to moisture or condensation prior to sufficient cure.

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**Decals:**

- Do not use 680 Series Reflective Decals from 3M with these urethane products.
- Care should be taken when applying any decals over RCT products. Blistering may occur under decal.
- Contact your RCT representative for compatible decals and/or details for proper application of all decals.

**Touch-up Procedure:**

Inspect the cured film for any defects, such as holidays, pinholes, runs, sags, overspray, low or excessive film thickness.

- A few small size holidays and pinholes may be repaired by brushing and working paint into the void to provide protection. Many large size holidays and pinholes must be sanded using fine sandpaper and cleaned thoroughly.
- If small runs or sags are seen soon after initial painting, a brush may be used to spread or dab. This is acceptable provided the coating is wet and reflows. Runs and sags of a cured coating can be corrected by the use of a scraper or sandpaper. The corrected/prepared area may be re-sprayed or brushed.
- Overspray may be removed with very fine sandpaper. Care is to be taken to keep the coating intact. The prepared area may be touched up by re-spraying or brush.
- Low film thickness may be corrected by re-spraying or brush, depending on the size of the area and location.
- Excessive film thickness may be corrected by sanding or blasting, depending on the size of the area. The prepared area may be corrected by brushing or re-spraying.
- For all re-applications or touch-ups, it is recommended that RCT 01 1201 CS touch up reducer be used. This product will allow greater flow and minimize pinholes.
- Re-inspect the coating film after any corrections have been made to assure a continuous film has been applied at the recommended thickness.

**Clean-up:**

Methyl Ethyl Ketone (MEK) solvent may be used for cleaning up. If not flushed out, batch mixed material will set up in the lines and equipment. With plural component equipment, be sure to flush from the mixing head through the delivery hose and guns.

**Storage & Shelf Life:**

- Containers must be closed tightly
- Do not store at temperatures above 100°F
- Do not store outside
- Rotate stock
- Do not use shelf life expired materials
- Shelf Life is one year from date of manufacture when properly stored.

**Packaging:**

RCT DTMU is available in one 1-gallon kits, five 5-gallon kits and 55-gallon steel drums. For additional packaging options, please contact your local Rapid Cure Technologies representative.

**Safety Information:**

Avoid contact with skin and use good ventilation. Wear chemically resistant gloves (nitrile are recommended) and chemical safety glasses. If skin contact is made, wash immediately with soap and water. Do not use solvents to clean skin. Refer to Material Safety Data Sheet for further safety and handling information.

FOR PROFESSIONAL USE ONLY  
NOT FOR RESIDENTIAL USE  
KEEP OUT OF REACH OF CHILDREN



**SIGNAL WORD: WARNING**

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