



# TECHNICAL DATA SHEET

TECHNICAL DATA SHEET  
MIL-DTL-53039E TY. IX  
MOISTURE CURE  
CARC POLYURETHANE  
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**PRODUCT:** A single component, hi-solids aliphatic, Low VOC / HAPS Free, CARC polyurethane coating.

**DESCRIPTION:** MIL-DTL-53039E Polyurethane Coating is a single component moisture cured product that forms a film that is resistant to chemicals, solvents and abrasion. This product has excellent adhesion to most substrates and is recommended for heavy duty industrial applications where a tough, chemical resistant coating is required. This coating is available for brush, roll and spray applications. It is specially formulated for excellent ultraviolet ray resistance and superior exterior durability. It is low "VOC" and high solids to comply with most regulations. Available in both camouflage and non-camouflage for use as a finish coat of military combat equipment.

**PROPERTIES:**

SOLIDS (Volume)..... 51 - 54%\*\*  
VISCOSITY..... 65 - 80 KU  
SHELF LIFE (77 degrees F)..... 1 Year\*  
DRY TO TOUCH..... 5-30  
Minutes\* DRY  
HARD..... 3 Hours\*  
DRY THROUGH..... 4 Hours\*  
FULL SERVICE..... 7 Days\*  
VOC CONTENT..... <180 G/L / 1.5 Lbs/Gal  
Higher temperatures will accelerate dry times and decrease pot life, lower temperatures will lengthen cure times and slightly increase pot life.  
Pot life is on unopened containers. After opening, the shelf life is 8 hours.\*

\*\*Values will vary with color.



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## ADVANTAGES :

- (1). Excellent Exterior Durability
- (2). Abrasion Resistant
- (3). Chemical Resistant
- (4). Meets MIL-DTL-53039E Specification
- (5). Resistant to Corrosive Fumes

**SURFACE PREPARATION:** Surface to be coated must be clean, structurally sound and free of all foreign contaminants including dirt, wax, loose paint or grease. Greasy or oily surfaces should be solvent cleaned with care taken not to paint over moist or wet surfaces. The recommended primer is MIL-PRF-23377J Epoxy Polyamide. The use of alkyd based primers under this coating is not advisable. Old paint in peeling condition must be removed. Sandblasting or wire brushing are the preferred methods. Chalky paint must also be wire brushed for maximum adhesion.

**APPLICATION:** MIL-DTL-53039E Polyurethane Coating can be brushed rolled or sprayed. If thinning is required, use MIL-T-81772B Type I Polyurethane Thinner. Apply at 4 wet mils / about 2 dry mils.

**NOTES:** Thixotropic viscosity is a normal property of this material. If the material is not shaken (15 Minutes on a mechanical shaker) before opening, the material may appear "jelly-like." Shake (mechanically), and the material will assume its liquid state.

If material is applied too thick mud-cracking will occur. If mud-cracking is observed in application, apply at a lower wet-mil thickness.



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## PRECAUTIONS :

USE WITH ADEQUATE VENTILATION.  
AVOID CONTACT WITH SKIN AND EYES.  
READ MATERIAL SAFETY DATA SHEET BEFORE USING.  
KEEP OUT OF THE REACH OF CHILDREN.  
FOR INDUSTRIAL USE ONLY.  
CONTENTS ARE FLAMMABLE.