

PDC® F-1053 IMC

DMF FREE

ALIPHATIC URETHANE/ TPU BASED- IN MOLD FOAM COATING
FOR INDUSTRIAL USE ONLY

DESCRIPTION:

F-1053 is a unique, high performance aliphatic polyurethane/ thermoplastic polyurethane IMC [in mold coating] that is spray applied into the mold tool to provide a durable, flexible, chemical and UV resistant coating on flexible urethane molded products. F1053 is DMF FREE.

F-1053 IMC can be used in many different types of molds such as silicone, epoxy and aluminum and performs best when used in aluminum molds between 70-120° F.

F-1053 IMC provides a ½ -2 mil coating that acts as a barrier and protects molded foams from UV, moisture, impact, puncture, abrasion, and chemicals while providing a durable flexible finish.

OTHER FEATURES INCLUDE:

Intended for use in molds with starting temps 90-120° F

Wide selection of colors.

Single component - no catalyst.

Fast dry time.

DMF Free

SPECIFICATIONS:

Solids: (wt) 11%

Tensile: [ASTM D-412] 2285 psi

Temperature use range: -0°F to 250°F

Elongation: [ASTM D-412] 390%

Block resistant: 4hr @ 140°F

Tear Strength: [ASTM D-1004] .20

Shelf life: 1+ years @ 77° f unopened container Finish: semi gloss

Coverage: 180 sq. ft. per gallon at 1 mil

CHEMICAL RESISTANCE: In House Test Results (ASTM D1308) NOT YET TESTED

Mineral oil: very good

Machine oil: very good

Saline: very good

Blood: very good

Urea (6% in H₂O): very good

All purpose cleaner: very good

Betadiene (Iodine): *very good

Acid (10% sulfuric in H₂O): very good

Gasoline: very good

Alcohol: very good

*stained after 5 minutes.

ALTERNATIVE PRODUCTS: F-897, F-899, F-1059

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SURFACE PREPARATIONS:

For best results avoid using silicone lubricants or excessive amounts of wax on mold surfaces. Always ensure the mold release being used is “paint compatible” or “paintable” to minimize adhesion issues.

USE ADEQUATE VENTILATION.**MIXING INSTRUCTIONS:****QUALITY CONTROL RECOMMENDATIONS FOR SPRAY AND DIP APPLICATIONS.**

F-1053 IMC may thicken/settle during storage, requiring thorough remixing before use each day. Use a high speed shear blade for best results. You can find this equipment at www.indco.com or for 5 gallon pails use a high rpm 3/8” air drill, threaded shaft with 4” circular saw blade that is double nitted with washers. Mix the pail for 2-3 minutes each day before use or every 4 hours during use for best results.

Avoid making solvent additions before mixing. Check viscosity. Some adjustments may be necessary for your particular use. Contact technical service for specific applications.

Spraying in mold: Hold spray gun 6"-10" from the mold surface, apply F-1053 IMC in a uniform wet coat using an overlapping motion. Be sure to cover the entire mold surface evenly to avoid finish variations. Check dry coating thickness periodically to ensure a minimum thickness of ½ mil to as much as 2 mils are achieved for best results.

NOTE: To accelerate cycle times preheat the mold up to 120° F.

RECOMMENDED EQUIPMENT AND SETTINGS:

Binks® model 2100 gun

Nozzle: 66SS

Cap: 66SD

Needle: 565

Material: 15-20 psi

Atomization: 20-40 psi

Dilution: none required

Clean up: Acetone or MEK

HINTS: Always mix before spraying. Always use proper ventilation and protection.