MFI SYSTEMS™ **INDUSTRIAL COATINGS**

TECHNICAL DATA SHEET

MFI-580/MFI-580W
1K DTM PRIMERS

PRODUCT DESCRIPTION MFI-580 1K DTM Primers are high build, industrial grade primers that can be applied to properly prepared bare steel, pretreated aluminum, fiberglass and composite plastics. They have excellent corrosion resistant properties when applied to bare steel. There is no need to apply a pre-treatment primer. MFI-580 1K DTM Primers can be topcoated wet-on-wet without sanding after 20 minutes.

COMPATIBLE SUBSTRATES

Cleaned or Blasted Steel	Cleaned and Sanded Painted Surfaces	Pretreated Aluminum
Epoxy Max Epoxy Primers	MFI-590 Epoxy Sealers	Properly Prepared Fiberglass/SMC

SURFACE PREPARATIONS

The surface must be clean and free of all surface contamination. A degreaser/acid cleaner should be used to remove oils and other contaminants. See your MFI Systems™ Representative for recommendations.

MIXING

RTS (Ready-to-Spray)

NOTE: SHAKE WELL BEFORE USE. Make sure product is at room temperature (72°F/22°C) before mixing. MFI-580 DTM Primers can be mixed 10:1 with MFI-500 High Solids Activator for extreme condition applications.

APPLICATION

Apply 1-2 wet coats of 1K DTM Primer. Allow 5-10 minutes flash time between coats. 1K DTM Enamel Primers can be topcoated in 20 minutes @ 70°F (21°C). See spray equipment setup and recommendations on page 2.

- Do not apply at temperatures below 50°F
- Drying time listed may vary, depending upon film build, temperature, humidity and degree of air movement
- Excess film thickness will retard dry times and affect the recoat window

CURE TIMES

Air-dry (assumes 77°F & 50% Relative Humidity)
To Topcoat: 20 min.
To Sand: 90 – 120 min.
To Recoat: 18 hrs. (After 18 hours, sand with 320 grit)

Bake / Force Cure
Substrate Temp: 130°F (54.4°C)
Bake Time: 15 min.

See Safety Data Sheet and labels for additional safety information and handling instructions.

- The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels and SDSs of all component, since the mixture will have the hazards of all its parts.
- Improper handling and use, for example, poor spray technique, inadequate engineering controls, and or lack of Personal Protective Equipment (PPE), may result in hazardous conditions or injury.
- Follow spray equipment manufacturer's instructions to prevent personal injury or fire.
- Provide adequate ventilation for health and fire hazard control.
- Follow company, product SDS and respirator manufacturer's recommendations for selection and proper use of respiratory protection. Be sure employees are adequately trained on the safe use of respirators per company and regulatory requirements.
- Wear appropriate PPE such as eye and skin protection. In the event of injury, see first aid procedures on SDS.
- Always observe all applicable precautions and follow good safety and hygiene practice.
- For additional health and safety information refer to the SDS which can be found at www.mfisystems.com

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TECHNICAL DATA SHEET

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1K DTM PRIMERS

TECHNICAL DATA:

Property	Method	Result*
Color		Dark Gray/White
Gloss @ 60° Angle	ASTM D523	~20
Pencil Hardness	ASTM D3363	HB – H
Conical Mandrel (1/8")	ASTM D522	Pass
Adhesion	ASTM D3359	5B, Excellent
Humidity Resistance - 300 Hrs.	ASTM D2247	Excellent (topcoated)
Salt Spray Resistance – 400 Hrs.	ASTM B117	Excellent (topcoated)
Chemical Resistance		Good
Substrates		CRS, HRS, Pretreated aluminum, Plastics**,Fiberglass**
Recommended Topcoat(s)		MFI-5000 Series, MFI-5100 Series, MFI-5200 Series, MFI-5300 Series, MFI-5500 Series

*These results were obtained over iron phosphated CRS panels.
**Because of the variability of plastic/fiberglass substrates, coating performance should be confirmed on the actual plastic or fiberglass substrate being used.

PHYSICAL PROPERTIES:

Property	
Weight per gallon	10.2 ± 0.3 lbs./gal.
Weight Solids (%)	55.0 ± 2.0
Volume Solids (%)	36.0 ± 2.0
Flash Points	
MFI-5000 Series Polyurethane Paint	68°F (20°C)
MFI-500 High Solids Activator	133°F (56°C)
VOC (less exempts)	2.10 lb./gal.
VOC (actual)	1.42 lb./gal.
Coverage (@1mil, no loss)	539 – 599 sq. ft./gal.
Shelf Life	12 months

APPLICATION:

Mixing Instructions: SHAKE WELL BEFORE USE.

RTS (Ready-to-Spray)

Wet Film Thickness: 3 – 4 mils per coat
Dry Film Thickness: 1.5 – 2 mils per coat
Reducers: Fast – MFI-465 Reducer, Medium – MFI-475 Reducer, Slow – MFI-485 Reducer
(Use of the following reducers will increase V.O.C.s above 3.5 lb./gal.: MFI-365, MFI-375, MFI-385)
Pot Life: 4 hours @ 77°F (25°C)

Spray Application	Spray Equipment*	Fluid Pressure (psi)	Atomization Pressure (psi)	Fluid Nozzle	Air Nozzle
Conventional	Binks 2001	20 - 25	50	66SS (0.070" , 1.8mm)	67PB
Conventional	DeVilbiss MBC-510	20 - 25	50	E (0.070" , 1.8mm)	92
HVLP	DeVilbiss JGHV	20 - 25	50 - 55**	E (0.070" , 1.8mm)	83MP
Air Assisted Airless	Graco G-15	900 - 1300	20 - 40	0.017 - 0.019"	249596
Airless	Graco G-40	1400 - 2000	n/a	0.017 – 0.019"	n/a

*or equivalent **atomization pressure should read <10 psi @ the cap

The technical data presented is information believed by MFI Systems™ to be currently accurate; however, no guarantee of accuracy, comprehensiveness or performance is given or implied. Continuous improvements in coating technology may cause future technical data to vary from what is in this document. Product is intended for application by trained personnel in a factory or shop application. Do not attempt to use product without the current Safety Data Sheet. The performance of a product can fluctuate due to surface preparation technique, method of application, operating conditions, the material it is applied to or with, and use. It is strongly recommended that products be tested with respect to these factors prior to full scale use.