CYTONIX

FluoroThane-MX™

	FluoroThane-MX™ is a 1-step hydrophobic coating formulated for spraying. FluoroThane MX is available in specific color shades including Green (# 34094), Black (# 17038), White (# 37925), Insignia White (# 27875), Tan (# 33446), Sand (# 33303), Cool Grey (# 7035) and French Grey (# J724). 
Appearance	The coated surface is matt and frosty in appearance due to the nano-particles on the surface.
Performance	Hydrophobic performance is retained under a variety of conditions and for extended periods of time. The system is used for anti-wetting, anti-icing and anti-corrosion. FluoroThane MX is also oleophobic.
Durability	FluoroThane repels rain, ice and snow for up to 5 years. The FluoroThane coated surface may be washed with a hose spray, but handling or rubbing it, will reduce performance.
Coverage	Apply by spraying or rolling. However, spray application provides the most consistent results. Coverage will vary by the thickness of coating applied. The coverage of FluoroThane per gallon is 200 to 400 square-feet depending on the thickness of the spray application.
Directions	The temperature of the surface to be sprayed should be between 45°F and 95°F. At lower temperatures, the coating requires several days to properly dry. Keep container at room temperature prior to use. All surfaces need to be dry, clean and free from dust, wax, grease and polishes for good adhesion. Shake can vigorously for 30 seconds. Hold the spray-gun vertically 8-10 inches from surface. Depress the button fully. Move evenly across the surface covering 6-10 inches per second. Apply half overlapping strokes 3-4 inches apart. Shake the reservoir for a few seconds every 15 seconds. Allow 2 hours to dry before exposure to rain. The coating is substantially cured in 24 to 48 hours. For best performance never touch the coated surface.
Purchasing	FluoroThane is offered for sale by online, calling or emailing Cytonix. FluoroThane-MX solvents are not-flammable and is easily shipped worldwide.
Temperature Cycle Testing	FluoroThane was uncompromised by rapid temperature cycling and can be expected to perform well in both cold and hot environments.
Salt Fog and Chlorine Exposure	FluoroThane is functionally uncompromised by the extremely corrosive chlorine atmosphere and can be expected to perform well in many other corrosive environments. FluoroThane showed complete or substantial resistance to high salt and high humidity environments that are expected for marine or coastal installations. No visible corrosion after 1,000 hours of salt fog.
Performance	FluoroThane exhibited no significant loss of contact angle after 6 hours of rain. In subsequent tests, FluoroThane had 130° contact angles after exposure to extreme rain at 60 inches per hour for one hour.

History

FluoroThane MX has been available commercially since 2009. This includes large applications such as that shown in the picture on large radomes, radomes on ground mobile systems and wind turbine speed sensors in the UK, Norway and Spain.

Substrates and Curing

Self-priming over fiberglass and reinforced epoxy composites. Prime to 25 microns dry film thickness with DuPont 25P high-solids epoxy mastic over steel, galvanized-steel, stainless-steel, and aluminum. A single coat is adequate for most applications.
-- Dry to Touch 1 Hour at 70°F
-- Dry to Handle 5 Hours at 70°F
-- Full Cure 7 days at 70°F
Curing at 120°F for 15 minutes will allow handling immediately.

Limitations

Excessive abrasion will reduce performance. Organic solvents will reduce performance.

Colors:	Green (# 34094), Black (# 17038), White (# 37925), Insignia White (# 27875), Tan (# 33446), Sand (# 33303), Cool grey (# 7035) and French Grey (# J724)
Solids percent:	~10%
Flammability:	Non-Flammable
Storage temperature:	20-30°C
Shelf life:	1 year
Weatherability:	1 - 5 years (varies based on environmental conditions)
Dielectric constant:	3 at 100 MHz
Electrical resistivity:	~2 tera ohms
Taber abrasion:	Hydrophobic (130°) after 5-10 cycles with CS10 wheel
Water contact angle versus exposure time in a rapid aging environmental chamber:	-- 6 months (3 days in chamber): 130° -- 1 year (7 days in chamber): 130° -- 2 years 14 days in chamber): 128° -- 5 years (25 days in chamber): 120°

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