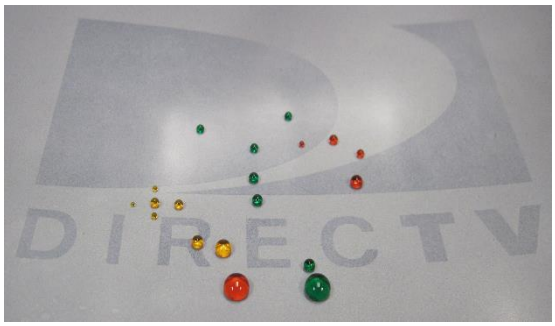
CYTONIX

FluoroThane WT TDS

FluoroThane WT is a water-based very low VOC super-hydrophobic coating formulated for spray and roll-on application. FluoroThane has excellent UV, weather and pollution resistance and can be expected to maintain 145° contact angles to heavy rain for many years. This super-hydrophobic coating is a good countermeasure in the prevention of ice accretion on non-shielded microwave dishes equipped with molded spherical or conical radomes, shielded microwave dishes equipped with non-hydrophobic surfaced rigid planar radomes, parabolic grid dishes, mobile radio fiberglass radomed panel antennas, passive reflectors and other telecommunications devices.



Colored water is repelled & forms beads on FluoroThane WT coated surface

Color	White
Solids percent	~40%
Flammable solvents	No
Storage temperature	20-30°C
Shelf life	1 year
Weatherability	2 - 5 years (varies based on environmental conditions)
Odor	Urethan-like odor when wet. Odorless when dry
Shelf Life	1 year stored in original unopened container
One Part System	Yes
Application Options	Spraying
Chemistry	Fluoro-Carbon
Contact Angle to Water	>140°
Hardness	~2H pencil
Flammability	No
Heat stability continuous	100°C
Max heat stability one hour	200°C
Transparent	No
Substrates	Plastic, metal, glass and foam
Coating properties	High tensile strength, high elongation, UV resistant, low temperature flexible, abrasion resistant, impact resistant
Rapid aging, UV and rain chamber; exposure time versus water contact angle	-- 1 year (7 days in chamber): 146° -- 5 years (25 days in chamber): 144° -- 10 years (48 days in chamber): 145°
Taber abrasion	Super-hydrophobic >140° after 100 cycles with 500 grams, 5 cm, CS10 rubber wheel

Application Instructions

DESCRIPTION: FluoroThane WT is a water-based super-hydrophobic coating formulated for spray application. Coatings have excellent UV, weather and pollution resistance and can be expected to maintain 145° contact angles to heavy rain for many years. The temperature of the surface to be painted should be between 45°F and 95°F. Keep container at room temperature prior to use. All surfaces need to be dry and free from wax, grease and polishes for good adhesion.

DIRECTIONS: Surface should be clean, dry and free of oils and detergents. Priming metal or plastic surfaces with UV resistant acrylics or polyurethane-alkyds is optional. Check lid for tightness and then shake product vigorously for 60 seconds just prior to use. Surface and ambient air temperature should be 55-75°F. Spray coating at a gun distance and speed to just cover the surface. Do not try to "build" the coating for a wet or visible edge. Use only gravity-feed HVLP (1.4 – 2.0 mm fluid tip) set at full fan and 2 to 2.5 turns feed, with 10-50% overlap at 35 psi (dynamic at pump; 25" hose), a gun distance of 5 to 6 inches and a rate of 5 to 7 inches per second is optimal. Spray pattern for a single pass should coat a 5 to 6-inch-wide strip. Agitate coating in gun reservoir every 60 seconds. Large external reservoirs should have continuous mixing. The coating should appear immediately after application as a barely visible translucent frost. Coverage is 50 to 100 square feet per liter depending on percent overlap and degree of dispersion. Clean up immediately with water. Keep container tightly closed in cool dry location. Shelf life of unopened product is 12 months. Coating will be light rain resistant in 60 minutes, substantially cured in 12 hours, and fully cured in 7 days. If heavy rain is expected within 12 hours, cover loosely with polyethylene film. For best rain performance, avoid touching or abrading active surface. Improperly applied coatings may not be hydrophobic or may not be resistant to rain erosion.

TROUBLE SHOOTING: (1) Coating does not have a high contact angle: This may result from coatings that were applied too thick, wet or incompletely atomized. Reduce feed, and/or recoat at a faster gun speed and greater gun distance, and/or increase pressure. (2) Coating initially has a high contact angle but wets out rapidly: This results from coatings that applied too dry or sparse; recoat at a closer gun distance and/or a slower gun speed and/or higher feed rate. (3) Coating is soft and powdery: The components of the coating have separated or settled; please shake the can for 120 seconds and re-spray as usual. 4) Low contact angle: The components of the coating have separated or settled; please shake the can for 120 seconds and re-spray as usual.

CAUTION: MAY IRRITATE SKIN AND MUCOUS MEMBRANES. USE PROTECTIVE EQIPMENT WHEN SPARYING. AVOID CONTACT WITH SKIN, MOUTH, NOSE AND EYES. KEEP OUT OF REACH OF CHILDREN. DO NOT BREATH DECOMPOSITION PRODUCTS RESULTING FROM EXPOSURE TO HIGH TEMPERATURE

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