

WX2100™ a Fluorothane™ Product Helps Prevent Rain Fade

When rain creates a water film on satellite dishes it results in reduced or lost signal. On WX2100 coated dishes rain drops bead-up and roll-off decreasing the reduction in signal strength.



What is WX2100?

WX2100™ is an aerosol version of Fluorothane™, which is a super-hydrophobic water repellent coating. When coated with WX2100™, water forms beads and rolls-off the surface, preventing filming.



Rain-Fade and WX2100

Rain-fade is caused by weakening of satellite signal as it passes through rain, ice or snow. In heavy rain, a film of water also can form on satellite dishes contributing to poor video or loss of signal. When coated with WX2100™, water forms beads and rolls-off the surface, preventing filming. Snow and ice accumulation, which also interferes with signal reception, will be significantly reduced.

Performance

The picture shows two satellite dishes during a moderate snowstorm with snow accumulation of 2 to 3 inches. The dish coated with WX2100™ on the right hand side had signal strength of 96%. The uncoated dish on the left hand side experienced a 50% loss of signal and loss of TV reception with the snow accumulation.



WX2100 Durability

WX2100™ repels rain, snow and ice for up to 10 years. The WX2100™ coated surface may be washed with hose spray, but handling or rubbing it, will reduce its performance.

Coverage

Coverage will vary by size of dish and thickness of coating applied. An 11-ounce can covers approximately 20 sq. ft. (4 typical size dishes or two larger dishes).

Directions for Use

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 and free from wax, grease and polishes for good adhesion. Some metals, plastics and polyurethane coats may require light sanding. Shake can vigorously for 30 seconds. Hold the can vertically 8-10 inches from surface. Depress the button fully. Move the can evenly across the surface covering 6-10 inches per second. Apply half overlapping strokes 3-4 inches apart. Shake the can 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 and cost

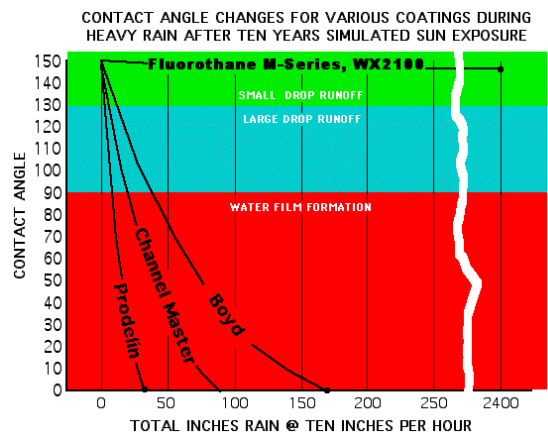
WX2100™ is offered via the Cytonix web store and select distributors. WX2100™ costs less than \$40 per can. WX2100™ is shipped via UPS ground to the 50 United States, Canada and Mexico.

UV resistance WX2100™ and Fluorothane™ M-series shows complete resistance to 280 to 380 nm UV exposure that could be expected during 10 years at equatorial installations. Surface analysis after prolonged exposure showed no evidence of erosion or water penetration.

Temperature Cycle Testing WX2100™ and Fluorothane™ M-series were uncompromised by rapid temperature cycling and can be expected to perform well in both cold and hot environments.

Salt Fog and Chlorine Exposure WX2100™ and Fluorothane™ M-series are functionally uncompromised by the extremely corrosive chlorine atmosphere and can be expected to perform well in many other corrosive environments. WX2100™ and Fluorothane™ M-series showed complete or substantial resistance to high salt and high humidity environments that are expected for marine or coastal installations.

Performance data and Comparisons The graph compares the contact angles during heavy rain exposure of Cytonix's Fluorothane™ M-Series, WX2100™, Boyd Coatings Research's "Liquid Teflon", Channel Master's Jones-Blair coating, and Prodelin's "Super-Hydrophobic" coating. Prodelin and Channel Master provided panels for testing, and the Boyd coating was applied according to the manufacturer's specification. Panels were exposed to the equivalent of ten years equatorial sun from a 400 watt low pressure mercury lamp with parabolic aluminum reflector at a distance of 8 inches from the focal point. Panels were then exposed to scattered droplets from a high velocity water stream impacting a smooth plastic surface at 45 degrees. The scattered droplets have a drop size distribution similar to heavy rain, reaching the test panels at a rate of 10 inches per hour. The Prodelin, Channel Master and Boyd panels all had contact angles below 90° and uniform water filming after the first few hours of the rain challenge. Fluorothane™ M-Series and WX2100™ exhibited no significant loss of contact angle after 240 hours and 2400 inches of rain. In subsequent tests, Fluorothane™ M-Series and WX2100™ had 145° contact angles after exposure to extreme rain at 60 inches per hour for one hour.



WX2100 History WX2100™ aerosol cans contain Fluorothane™ M-series, which has been available for commercial applications since 2003. This includes large applications such as that shown in the picture in Norway, wind farms in Spain and wind speed sensors worldwide.



Customer Testimonial "In my opinion this new super-hydrophobic coating may be the best 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 many more telecommunication applications." - RSG

