

Brillianz®

UV Stable Anti-Fog/Condensation Control Coating



General Description

This Anti-Fog and Condensation Control Coating is a heat and UV stable, non-yellowing, coating solution, imparting anti-fog properties and UV resistance. This product will produce a semi-permanent* anti-fog coating on substrates including: Acrylic, Glass, Silicone, PET, Polycarbonate, PVC, Stainless Steel, and many more. This mixture is NMP Free and available in waterborne and solvent based mixtures.

*reference to chemical resistance

Coating Cure

Coating performance is reduced, if not properly cured. Adhesion to substrate, crazing and coating properties can be affected. In general, we recommend a thermal cure of 140° C for 45-60 minutes** for most coatings and/or substrates.

**some curing times and thermal temperatures can vary depending on the substrates, coatings, thickness of the coating, and the application method, such as spray, roll, flow or dip processes that vary the coat thickness. Contact us for best methods and cure times.

Chemical Resistance

The anti-fog coating should not be exposed to strong acids, oxidizing materials, harsh cleaning chemicals or any other possible transfer contaminants, caused by shipping/packaging or wrappings. For cleaning the surface of your substrate or device, after the coating has been applied and cured, use a soft cloth with warm soap water. If needing more information on how to clean your material or how to increase resistance, please contact for our recommendations.

Clean Up

It is best to do equipment clean up before the coating solidifies. Coating residual can be cleaned with water or isopropyl alcohol (IPA). Adhere to local ordinances before disposal in wastewater systems. For spray application systems we recommend cleanup with MEK, MIBK or similar solvent. Check with the spray equipment supplier for recommended cleaning solvents.

Coating Methods and Application

Our UV Stable Anti-Fog and Condensation Control Coating can be coated using roll*, dip, curtain or HVLP spray coated methods. Do not dilute. As process variables differ, the end user must experimentally determine the optimum coating process for each application. If the substrate is contaminated with grease, water or oils, this can destroy the anti-fog/condensation control adherence properties. Prior to the coating application, we recommend that the surface to be coated is clean of any dirt, contaminants, or residues left over from packaging, shipping or other methods of introduction. These can interfere with the anti-fog coating and reduce its performance during use. Depending on the substrate and the contaminants that may be present, pre-cleaning methods can vary from using soap water to appropriate solvents. For further support, please contact us for our recommendations

Coating thickness is dependent upon volume solids. Dry Film Thickness = Wet Film Thickness x Volume Solids.

*Example for Roll Coating with a #22 Mayer's Rod

Size #22	2.2 wet mils	55.9 Microns	30% Solids
----------	--------------	--------------	------------

$$\begin{aligned} \text{Applied Wet Film Thickness} &= W & W &= \frac{D}{P} & D &= W \cdot P & P &= \frac{D}{W} \\ \text{Dry Film Thickness} &= D & \% \text{ Solids} &= P \end{aligned}$$

Shelf life: Typically, 6 months in original sealed container. Must be stored at 60° to 70° F. Care should be exercised to avoid contaminating the solution with other reactive additives.

Safety Precautions

Flash Point: Solvent-based formulations will vary

Recommended Usage

Drones, aerospace visors, helmets, goggles, windows, roadway/runway reflector, outdoor signage, optical sensors and cameras, LEDs, greenhouse and solar panels, skylights, lighting.