

# HCF-100 Anti-Fog Coating

## PRODUCT TYPE

HCF-100 is a Solvent Based Anti-Fog Coating formulated to provide a permanent, non-fogging and anti-condensation surface on a variety of substrates.

## PROPERTIES

- Permanent, Moisture absorbing properties
- Passes Fog and Abrasion resistance requirements of EN 166:2002 (7.3)
- Adhesion to a variety of plastics types including polycarbonate and glass
- Thermal curing

## SAFETY AND EXPOSURE

All users must read and understand the Safety Data Sheet prior to using this product.



## LIQUID PROPERTIES at 25°C

PROPERTY	RANGE
Viscosity	40 – 80 centipoise (cP)
Specific Gravity	0.97 – 0.98
Solids, % by weight	30 – 34
Compatible Solvents	1. Diacetone Alcohol 2. 2-methoxypropanol (Glycol Ether PM) 3. Isobutanol
Maximum Dilution	80% Anti-Fog Coating: 20% Solvent

## CURED COATING CHARACTERISTICS

Polycarbonate substrate, 8.0 microns

PROPERTY	RANGE				
Light Transmittance	≥ 88% (polycarbonate); ≥ 99% (glass)				
Haze	< 1.0%				
Adhesion	100% (5B)				
Thickness, microns	6.0– 18 (8.0)				
Chemical Resistance	<table border="0"> <tr> <td style="vertical-align: top;">Pass</td> <td>Alcohols (ethanol/isopropanol), typical household cleaners, aliphatic (diesel/gasoline/heptane/cyclohexane), Dilute alkali and acids</td> </tr> <tr> <td style="vertical-align: top;">Fail</td> <td>Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), dichloromethane, Concentrated acids and alkali</td> </tr> </table>	Pass	Alcohols (ethanol/isopropanol), typical household cleaners, aliphatic (diesel/gasoline/heptane/cyclohexane), Dilute alkali and acids	Fail	Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), dichloromethane, Concentrated acids and alkali
Pass	Alcohols (ethanol/isopropanol), typical household cleaners, aliphatic (diesel/gasoline/heptane/cyclohexane), Dilute alkali and acids				
Fail	Esters (ethyl acetate), Ketones (acetone, 2-heptanone;2-butanone), dichloromethane, Concentrated acids and alkali				

## WARRANTY LIMITATIONS

The physical and performance properties cited herein represent typical values for HCF-100 Anti-Fog Coating, and are not meant as exact specifications. Customers must conduct their own validation testing to determine the appropriate use of this product for any purpose. This information is not to be considered a warranty or license to infringe upon any patented process or product; no liability for infringement arising out of such a use is assumed.

## DELIVERY OPTIONS

The HCF-100 Anti-Fog Coating solution is available for shipment within two weeks of order confirmation, and is available in quart, gallon, five-gallon pail, and 55-gallon drum containers. Contact Exxene to select the best payment option and the optimum shipping method according to your preference and region. All charges, duties, and fees associated with the shipment and its contents are the responsibility of the customer.

## APPLICATION PARAMETERS

PROPERTY	RANGE
Application Methods	
Dip	1 – 3.5 mm /second withdrawal rate
Spray	<i>Not suitable for spraying</i>
Flow Coat	As appropriate to flow system
Suggest Primers	SP-12 Primer on glass substrates
Environment	
Temperature / Humidity	16 – 30°C / 20 – 50 % RH
Dew point	Dew point must be at least 10° lower than room temperature.
Air quality	Laminar, top-down flow < 5 cfm Particle count as appropriate ( ≤ Class 10,000 )
Coating Temperature	Within 5° of Ambient temperature
Coating Filtration	Polyethylene or polypropylene; nominal media rated at 0.5 to 1.0 microns as a pre-filter; absolute media rated at 5.0 to 10.0 microns. <i>Filter all coating before use.</i>
Cure Conditions	60 – 90 minutes at 110 °C 45 – 75 minutes at 120 °C

## EQUIPMENT PREPARATION

**Compatible Materials:** All equipment surfaces must be constructed of stainless steel, polyethylene, polypropylene or similar, chemical resistance substances. Mild steel, brass, copper, and polyvinyl chloride (PVC) or plasticizer-containing materials cannot be allowed to contact the coating solution.

**Cleaning:** All coating equipment must be thoroughly cleaned with a compatible solvent to remove all traces of other coatings, solvents, or old batches of the same product. After all residues have been removed from the equipment, multiple rinses of Diacetone Alcohol or Glycol Ether PM are used to prepare the system for the introduction of filtered HCF-100 Anti-Fog Coating solution.

**STORAGE** HCF-100 solution is stored at room temperature, or at refrigerated temperatures. When stored in the original, sealed container, the solution should be used within six months of the production date.

**SUPPORT** Contact Us via telephone at +1(361)991-8391, email [Info@Exxene.com](mailto:Info@Exxene.com), or fax to +1(361)991-9057. We are located at 5939 Holly Road, Corpus Christi, TX 78414.