

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.

EXXENE[®]
CORPORATION
www.Exxene.com

LIQUID PROPERTIES at 25°C

| PROPERTY | RANGE |
|---------------------|---|
| Viscosity | 100 – 250 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 |
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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, or fax to +1(361)991-9057. We are located at 5939 Holly Road, Corpus Christi, TX 78414.