

Visgard® UV

UV-Cure Anti-Fog Coating

DESCRIPTION

Visgard UV is a UV curable anti-fog coating. It combines water sheeting Anti-Fog performance with abrasion and chemical resistance. It can be applied by spin coating techniques and has been specifically developed for use with polycarbonate substrates.

FEATURES

- UV Curable Anti-Fog Coating
- Abrasion and Chemical Resistance
- Water Washable Anti-Fog Properties
- Optical Clarity
- Hydrophilic easy-clean surface
- Primer-free Adhesion to Polycarbonate
- Primer required for adhesion to CR-39®, MR-7™, MR-8™, MR-10™ and Trivex®
- AR should not be applied to coating

STORAGE AND USE

The recommended storage temperature for Visgard UV is 25°C (77°F) if used within 6 weeks of receipt. For longer storage, up to 4 months store at 4°C (30°F) or up to 7 months at -18°C (0°F). Lenses coated with Visgard UV should be stored in a cool, dry environment. It is recommended to use high density polyethylene (HDPE) bags (>2 mil). The bags should be sealed to exclude moisture. Do not package in an area where humidity is > 70%.

SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
% Solids	56.5 - 59.0 %
Viscosity @ 25°C	19 - 29 cP
Density @ 25°C	1.19 - 1.29 g/ml

CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	3.0 - 6.0 µm
Primary Adhesion	100 %
80°C 1hr DI Water Adhesion	100 %
60°C Anti-Fog Performance	>3 min
Haze	<1.0 %

RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Environmental Conditions	20 - 25°C, 30 - 50 % RH
Air Flow	Filtered, Laminar
Coating Temperature	15 - 25°C
Coating Filtration	2 - 5 µm absolute
Coating Application	Spin coat
Coating Tank Pressure	20 - 23 psi
Spin Speed	1000 rpm/10 s, 2000 rpm/20 - 30 s
Substrate Pre-Clean	IPA wipe blow dry
UV Cure Energy (Measured w/ Quantum Technologies Quant 300S Radiometer)	2.0 j/cm2 (12 s)



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EQUIPMENT PREPARATION

Equipment Cleaning: Coating equipment should be cleaned prior to use of Visgard UV in order to avoid any possible contamination problems. The cleaning process should include multiple solvent rinses (utilizing a solvent compatible with the material in prior use with the equipment) followed by a thorough rinse with acetone or 1-Methoxy-2-propanol (PM). Acetone or PM should also be used for cleaning equipment after the use of Visgard UV. It is important to be sure all solvent has been completely removed/dried from coating bowl, tubing, and pump before adding coating.

Equipment Materials: All equipment surfaces that are exposed to Visgard UV should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with Visgard UV prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances.

APPLICATION ENVIRONMENT

Visgard UV should be applied in a clean temperature and humidity controlled environment. Recommended conditions for application are 20 - 25°C (68 - 77°F) and 30 - 50% relative humidity. Coating machine should be equipped with hepa air filter. It is recommended to place coating machine in a clean environment and in separate area from potential contamination sources.

LENS CLEANING

Lenses to be coated with Visgard UV should first be cleaned with isopropanol, then cleaned by inline cleaning system in the coating machine being used. Lenses should be clean and dry before application of Visgard UV.

HEALTH AND SAFETY INFORMATION

Before using this product, read and understand the Safety Data Sheet, SDS, which provides information on health, physical, and environmental hazards, handling precautions and first aid recommendations. For a copy of an SDS, contact a sales or customer service representative.

WARRANTY AND LIABILITY LIMITATIONS

Information contained herein is accurate to the best of our knowledge. The coating solution properties and cured coating properties listed herein represent typical values for Visgard UV and are not meant as specifications. FSICT insists that users conduct their own tests for applicability and fitness for any purpose. Statements concerning use of products or formulations described herein shall not be construed as a warranty or license to infringe any patent or trademark, and no liability for infringement arising out of such use is assumed. Please refer to FSICT Standard Terms and Conditions or to your Purchase Agreement with FSICT for the warranty coverage of FSICT's product.

PRODUCT SHIPPING AND AVAILABILITY

Typical lead-time for shipment of Visgard UV Anti-fog is four (4) weeks from confirmation of a purchase order. FSICT provides several shipping options. Please contact an FSICT representative to determine which option best fits your needs.

CR-39® and Trivex® are registered trademarks of PPG. MR-7™, MR-8™, MR-10™ are trademarks of Mitsui Chemicals, Inc. CrystalSpin® is a registered trademark of SDC Technologies. Visgard® is a registered trademark of FSI Coating Technologies.

