



Visgard® Premium SE Abrasion Resistant Anti-Fog Coating

DESCRIPTION

Visgard® Premium SE is a polysiloxane based thermal cure coating. It combines water sheeting Anti-Fog performance with abrasion and chemical resistance. It can be applied via dip, flow and spin coating techniques and has been specifically developed for use with polycarbonate substrates.

FEATURES

- Primer Free Adhesion on Polycarbonate
- Excellent Abrasion Resistance
- Wipeable and Water sheeting Anti-Fog Properties
- Optical Clarity
- One-part system, does not require premixing
- Compatible with Anti-Reflective and Mirror coatings
- Compatible with LDPE, HDPE and CPE packaging

STORAGE AND USE

The recommended storage temperature for Visgard Premium SE is 4°C (40°F). When stored at this temperature in the original closed container it is recommended to start use of the product within three months from the date received.

Parts coated with Visgard Premium SE should be stored in a cool, dry place. In a humid environment the coating may develop a wipeable haze which can be removed by wiping with a soft dry cloth.

Use LDPE, HDPE or CPE bags (2 mil thickness or greater). Do not package in an area where humidity is > 70%.

SOLUTION PROPERTIES

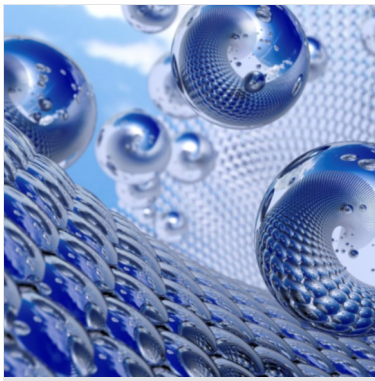
PROPERTY	TYPICAL VALUES
% Solids	30 - 35 %
Viscosity @ 25°C	≤38 cP
Density @ 25°C	1.00 - 1.10 g/ml
Solvents: Water, Methanol, Ethanol, Diacetone Alcohol and PM Glycol Ether.	

CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	4.0 - 5.0 µm
Refractive Index	1.48
80°C 1hr DI Water Adhesion	100%
80°C Anti-Fog Performance TM-103C	>5 min
Haze	<1.0%

RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Environmental Conditions	20 - 25°C, 35 - 65 % RH (Class 100)
Air Flow	Filtered, Laminar
Coating Temperature	15 - 25°C
Coating Filtration	5.0 µm absolute
Extraction Speed	0.4 - 0.9 mm/s
Dry Time/Temperature	2 min @ 20 - 25°C
Pre-Cure Conditions	10 mins @ 90°C
Cure Conditions (PC)	2 hrs @ 120°C



Visgard® Premium SE

Abrasion Resistant Anti-Fog Coating

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EQUIPMENT PREPARATION

Equipment Cleaning: Coating equipment should be cleaned prior to using Visgard Premium SE to avoid any possible contamination. Coating contamination can result in problems with adhesion, poor Anti-Fog performance or general appearance. 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 PM glycol rinse. PM glycol ether should also be used for cleaning equipment after the use of Visgard Premium SE.

Equipment Materials: Visgard Premium SE is incompatible with silicone-based surfactants, contact with these materials will impair anti-fog performance even at low concentrations. Be sure all equipment is thoroughly clean and free from other coating residues before evaluating Visgard Premium SE in production systems. A peristaltic pump is recommended for initial tests because there is no actual contact of Visgard Premium SE with the pump chamber or mechanical parts. Visgard Premium SE is incompatible with PVC tubing due to plasticizer extraction. Use only LDPE, PTFE, PU or stainless-steel tubing. Circulating PM glycol ether through the pump, hoses and filter for 8-12 hours is recommended for removing possible contaminants before start-up or change over.

PRETREATMENT AND CLEANING OF SUBSTRATE

Parts to be coated with Visgard Premium SE should be clean and free of any surface residues. Injection molded polycarbonate parts should be cleaned with a neutral detergent solution to remove any residues left on the parts from the molding process, and then rinsed thoroughly with de-ionized water.

SOLUTION MANAGEMENT

For optimum performance, Visgard Premium SE should be maintained at a solids range of 30 –35%. Higher or lower % solids can cause appearance problems or lead to a coating deposition that is either too thick or thin. The % solids should be measured on a regular basis and adjusted as needed by the addition of SM-940 or a 7.5/60/22.5/10 (w/w) mixture of water/methanol/ethanol and PM glycol ether.

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 Premium SE 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 Premium SE is four (4) weeks from confirmation of a purchase order. SDC provides several shipping options. Please contact an SDC representative to determine which option best fits your needs. All orders are shipped ex works/F.O.B. Additional shipment charges including customs clearance and fees (if applicable) are the responsibility of the customer.

