



# Technical Data Sheet

## CrystalCoat® UV SHC-605

### UV Curable Hardcoat

#### DESCRIPTION

CrystalCoat®UV SHC-605 is a UV curable hardcoat for spray or spin applications.

#### FEATURES

- 100% Solids (solvent-free)
- Primer-free adhesion to Polycarbonate, PMMA, and Polystyrene
- Abrasion Resistant
- Non Tintable
- AR compatible
- Spray or spin application

#### STORAGE AND USE

Store UV SHC-605 in closed, properly labeled containers. Do not store in containers that transmit UV light. Do not pad containers or pressurized vessels using nitrogen. Use of nitrogen may cause premature gelling. Avoid sunlight and other sources of UV light. Store UV SHC-605 at ambient temperatures less than 25°C (77°F). It is recommended to use UV SHC-605 within 12 months of the date of manufacture.

#### SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
Viscosity @ 25°C	35 - 40 cP

#### CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	5.0 - 25.0 µm
Refractive Index	1.49
Steel Wool hardness	8 (0-10 scale)
Pencil Hardness	3H (500 gram load)
Adhesion	100 %

#### RECOMMENDED OPERATING GUIDELINES

PROCESS	TYPICAL VALUES
Spray	Rotary atomizer or HVLP
Application Spin Speed	600 RPM
Spin Off Speed	1000 - 2000 RPM
Coating Filtration	5 µm absolute
UV-Cure - Cycle Time	Two passes at 3 feet per minute with Fusion F300 (H+ bulb) or one pass at 5 feet per minute with Fusion Light Hammer. Cure speed may be increased with an inert (nitrogen) environment.*

\* UV-cure energy of lamp systems may vary. These parameters are meant as a guideline.



# CrystalCoat® UV SHC-605

UV-Cure Ophthalmic Backside Coating

## CONTACT INFORMATION

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## EQUIPMENT PREPARATION

**Equipment Cleaning:** Coating equipment should be cleaned prior to use of UV SHC-605 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 isopropanol. Acetone or isopropanol should also be used for cleaning equipment after the use of UV SHC-605. 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 UV SHC-605 should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with UV SHC-605 prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances.

## APPLICATION ENVIRONMENT

UV SHC-605 should be applied in a clean temperature and humidity controlled environment. Recommended conditions for application are 20 – 25°C (68 - 77°F) and 30 – 60% relative humidity. Coating machine should be equipped with hepa air filter. It is recommended to place coating machine in a clean (class 10,000 or better) environment and in separate area from potential contamination sources.

## PARTS CLEANING

Parts to be coated with UV SHC-605 should first be cleaned with isopropanol, then cleaned by inline cleaning system in the coating machine being used. Parts should be clean and dry before application of UV SHC-605.

## 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 UV SHC-605 and are not meant as specifications. SDC Technologies, Inc. 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 SDC Technologies' Standard Terms and Conditions or to your Purchase Agreement with SDC for the warranty coverage of SDC's product.

## PRODUCT SHIPPING AND AVAILABILITY

Typical lead-time for shipment of UV SHC-605 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.

ISO 9001:2015 and ISO 14001:2015 Certified

