



# Technical Data Sheet

## CrystalCoat® UV HT-850

### UV-Cure Tintable Spin Coating

#### DESCRIPTION

CrystalCoat®UV HT-850 is a tintable UV curable hard coat for ophthalmic lenses or other plastic parts.

#### FEATURES

- Compatible with Anti-Reflective coatings, including Satisloh's SP-200 Sputter Coater
- Primer-free adhesion to Polycarbonate
- Abrasion Resistant
- Tintable
- Solvent-Based Formulation

#### STORAGE AND USE

The recommended storage temperature for UV HT-850 is 20 - 25°C (68 - 77°F). When stored at this temperature in the original closed container, it is recommended to use UV HT-850 within 12 months of the date of manufacture.

#### SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
Solids level	48 - 50%
Viscosity @ 25°C	10 - 17 cP

#### CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	3.8 - 4.5 µm
Refractive Index	1.50
Steel Wool hardness	4 - 5 (0 - 10 scale)
Bayer Ratio	1.1
Adhesion (30 min Boiling Water)	100 %
Tint—% Light Transmission (15 min BPI Black at 96°C / 205°F)	21 - 22%

#### RECOMMENDED OPERATING GUIDELINES

PROCESS	TYPICAL VALUES
Wash	Wash in neutral solution. No etching required.
Application Spin Speed	600 rpm for 5 seconds
Spin Out Speed	800 rpm for 40 seconds
Cure	18 seconds with 300 watts/inch medium pressure mercury arc lamp and elliptical reflector (~1.0 joules/cm <sup>2</sup> )
Coating Filtration	1.2 µm absolute

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



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## CONTACT INFORMATION

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## EQUIPMENT PREPARATION

**Equipment Cleaning:** Coating equipment should be cleaned prior to use of UV HT-850 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 HT-850. 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 HT-850 should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with UV HT-850 prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances.

## APPLICATION ENVIRONMENT

UVHT-850 should be applied in a clean temperature and humidity controlled environment. Recommended conditions for application are 20 – 25°C (68 - 77°F) and 35 – 60% relative humidity. Coating machine should be equipped with hepa air filter. It is recommended to place coating machine in a clean environment and in a separate area from potential contamination sources.

## LENS CLEANING

Lenses to be coated with UV HT-850 should first be cleaned isopropanol, then cleaned by inline cleaning system in the coating machine being used. Lenses should be clean and dry before application of UV HT-850.

## HEALTH & 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 & 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 HT-850 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 & AVAILABILITY

Typical lead-time for shipment of UV HT-850 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.

ISO 9001:2015 and ISO 14001:2015 Certified