



Technical Data Sheet

CrystalCoat® UV CST-1

UV-Cure Ophthalmic Tintable Backside Hard Coat

DESCRIPTION

CrystalCoat® UV CST-1 is a UV cured tintable hard coat for backside lens application. Designed for spin coat application.

FEATURES

- Solvent-free (100% solids)
- Abrasion Resistant
- Primer-free adhesion to multiple substrates including Polycarbonate, ADC (CR-39®, RAV 7®), Trivex®, Mid-Index Acrylic, 1.60 (MR-8™), 1.67 (MR-7™, MR-10™), and 1.74 (MR-174™)
- Tintable
- A/R Compatible
- Designed for use in SDC's CrystalSpin® coating machine



STORAGE AND USE

The recommended storage temperature for UV CST-1 is 20 - 25°C (68 - 77°F). When stored at this temperature in the original closed container, it is recommended to start use UV CST-1 within 12 months of manufacture.

SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
% Solids	100
Viscosity @ 25°C	30 - 45 cP

CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	4.0 - 6.0 µm
Bayer Ratio	~ 1.7
Adhesion (30 Min. Boiling Water)	100%
Tint Properties (as tested on polycarbonate)	
Light Transmission after 15 minutes	30%
Post Tint Adhesion	100%

RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Wash Spin Speed	~800 RPM
Dry Spin Speed	~1800 RPM
Application Spin Speed	500 RPM
Spin Off Speed	~1800 RPM
Coating Filtration	5.0 µm absolute
UV Cure - Cycle Time	22 seconds
Number of Lenses Coated per Bottle	2000 - 2500 (approximate)



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CONTACT INFORMATION

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CR-39® and Trivex® are registered trademarks of PPG.

MR-Series: MR-8™, MR-7™, MR-10™ & MR-174™ are trademarks, RAV 7® is a registered trademark of Mitsui Chemicals, Inc.

Teflon® is a registered trademark of The Chemours Company FC, LLC.

EQUIPMENT PREPARATION

Equipment Cleaning: Coating equipment should be cleaned prior to use of UV CST-1 in order to avoid any possible contamination problems. The cleaning process should include multiple solvent rinses with acetone or 1-Methoxy-2-propanol (PM). Acetone or PM should also be used for cleaning equipment after the use of UV CST-1. 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 CST-1 should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with UV CST-1 prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances.

APPLICATION ENVIRONMENT

UV CST-1 should be applied in a clean temperature and humidity controlled environment. Recommended conditions for application are 20 – 25°C (68 - 77°F) and 30 – 55% 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 edging or polishing equipment.

LENS CLEANING

Lenses to be coated with UV CST-1 should first be rinsed with Lens Pre-Wipe or isopropanol and loaded wet. Lenses will then be cleaned with deionized water in the Crystal Spin® coating machine.

SOLUTION MANAGEMENT

To ensure a long pot life of the coating, it is recommended to cover the coating bowl when lenses are not being coated (overnight).

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 CST-1 and are not meant as specifications. SDC 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's Standard Terms and Conditions or to your Purchase Agreement with SDC for the warranty coverage of SD's product.

PRODUCT SHIPPING & AVAILABILITY

Typical lead-time for shipment of UV CST-1 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.

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