



# Technical Data Sheet

## CrystalCoat® UV HT-482D

### UV-Cure Tintable Dip Coating

#### DESCRIPTION

CrystalCoat® UV HT-482D is a UV curable, hard coat for ophthalmic lenses or other plastic parts.

#### FEATURES

- Solvent-Based Formulation
- Abrasion and Chemical resistant
- Designed for Polycarbonate and PMMA substrates
- Tintable
- Dip Coating Application

#### STORAGE AND HANDLING

UV HT-482D is flammable and should be stored away from potential ignition sources. Store UV HT-482D in closed, properly labeled containers. Do not store in colorless glass containers or other 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 in ambient temperatures less than 75°F/24°C. When stored at this temperature in the original closed container, it is recommended to use UV HT-482D within 12 months from date of manufacture.

#### SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
% Solids	51—55
Viscosity @ 25°C	10 – 14 cP

#### CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	4.0 - 5.0 µm
Steel Wool Hardness	6 (0-10 scale)
Bayer Ratio	1.0-1.1
Adhesion (30 Min. Boiling Water)	100%
Tint—% Light Transmission (15 min BPI Black at 96°C / 205°F)	33-38%
Post Tint adhesion	100%

#### RECOMMENDED OPERATING GUIDELINES

PROCESS	TYPICAL VALUES
Wash	Wash in neutral solution. No etching required
Soak Time	15 seconds
Draw Speed	5"/min (127 mm/min)
Solvent Flash	10 minutes ambient air or 1 minute IR
Cure—Front*	4 feet per min. with Fusion F300 H+ Bulb
Cure—Back**	10 feet per min. Fusion F300 H + bulb
Coating Filtration	1.2 µm absolute

\* The front surface of the lens is cured with more energy, resulting in a harder surface. This can be augmented with the use of a nitrogen environment in the cure chamber.

\*\* The back surface is cured with less energy, resulting in a softer surface and to allow the backside coating to absorb more tint. These parameters are meant as a guideline.



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#### EQUIPMENT PREPARATION

**Equipment Cleaning:** Coating equipment should be cleaned prior to use of UV HT-482D 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 UV HT-482D. 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-482D should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with UV HT-482D prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances.

#### APPLICATION ENVIRONMENT

UV HT-482D 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 potential contamination sources.

#### LENS CLEANING

Lenses to be coated with UV HT-482D 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-482D.

#### 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-482D 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-482D 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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