



# Technical Data Sheet

## CrystalChrome® Ultra

### Photochromic Dip Coating

#### SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
Solids	18.5 - 20.5 %
Viscosity @ 25°C	≤40 cP
Solvents: PM Glycol Ether, n-Propanol, and n-Butyl Acetate	

#### CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	5.5 - 6.5 µm
Refractive Index	1.50
Adhesion	100 %

#### RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Environmental Conditions	20 - 25 °C, 25 - 40 % RH
Air Flow	Filtered, Laminar (Class 100)
Coating Temperature	20 - 22 °C
Coating Filtration	5 µm absolute
Extraction Speed	1.0 - 4.0 mm/s
Air Dry	30 s
Dry Time/Temperature	5 min @ 90 °C

#### DESCRIPTION

CrystalChrome® Ultra is a solvent based photochromic coating designed for dip coat applications to impart photochromic activity when activated with sunlight.

This TDS covers all current CrystalChrome Ultra products.

#### FEATURES

- Photochromic coating
- Designed for dip coat application

#### STORAGE AND USE

The recommended storage temperature for CrystalChrome® Ultra is 4 °C (40 °F). When stored at this temperature in the original closed container, it is recommended to start use of CrystalChrome Ultra within 3 months of the date received.

For extended periods of storage (3 - 6 months), CrystalChrome Ultra should be stored in a freezer at -18°C (0° F).



# CrystalChrome® Ultra

Photochromic Dip Coating

## SDC TECHNOLOGIES CONTACT INFORMATION

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## EQUIPMENT PREPARATION

**Equipment Cleaning:** Coating equipment should be cleaned prior to use of CrystalChrome Ultra 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 PM Glycol Ether rinse. PM Glycol Ether should also be used for cleaning equipment after the use of CrystalChrome Ultra.

**Equipment Materials:** All equipment surfaces that are exposed to CrystalChrome Ultra should be constructed of stainless steel, polyethylene, polypropylene or Teflon®. Other materials should be tested for compatibility with CrystalChrome Ultra prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances with CrystalChrome Ultra or other coatings that contain glycol ethers.

## SAMPLE PREPARATION

Prior to coating with CrystalChrome Ultra parts should be clean and free of any surface residues. A typical process would be to clean in a 10% aqueous solution of sodium hydroxide at 60°C for 5 - 10 minutes. This cleaning should be followed by city water rinsing, then DI water rinsing and drying. Lenses should be completely clean, dry, and cooled before application of any coating or primer.

CrystalChrome Ultra can also be used in conjunction with either CrystalChrome® Ultra PR or CrystalChrome® ST. For details on how to prepare samples for use with these materials refer to their respective TDS's.

## SOLUTION MANAGEMENT

For optimum performance, CrystalChrome Ultra coating solution should be maintained in a % solids range of 18.5 - 20.5 %. Higher or lower solids can cause appearance problems or lead to a coating deposition that is either too thick or too thin respectively. The % solids should be measured on a regular basis and adjusted as needed by the addition of SM-1015 - a 25/70/35 mixture of n-Propanol, PM Glycol ether and n-Butyl Acetate.

## 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 CrystalChrome Ultra 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 CrystalChrome Ultra 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.

