



Technical Data Sheet

CrystalChrome® HC (spin application)

Abrasion Resistant Coating

DESCRIPTION

CrystalChrome® HC is a polysiloxane based thermal cure hard coat designed for use with SDC's CrystalChrome Photochromic coating system.

FEATURES

- Abrasion Resistance
- Chemical Resistance
- Optical Clarity
- Compatible with Anti-reflective and metalizing treatments

STORAGE AND USE

The recommended storage temperature for CrystalChrome HC is 4°C (40°F). When stored at this temperature in the original closed container, it is recommended to start use of CrystalChrome HC within 3 months of the date received. For extended periods (3-6 months) of storage CrystalChrome HC should be stored at -18°C (0°F).

SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
Solids	23 - 25 %
Viscosity @ 25°C	≤ 8.0 cP
Density @ 25°C	0.95 - 1.00 g/ml
Solvents: Water, Methanol, Ethanol, Isopropanol, PM Glycol Ether	

CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	2.5 - 3.5 μm
Refractive Index	1.49
Bayer Ratio	3.0 - 3.5
Adhesion	100 %

RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Environmental Conditions	20 - 25 °C, 30 - 55 % RH
Air Flow	Hepa air filter
Application Spin Speed	3 s @ 300 - 500 rpm
Spin-off speed 1	50 s @ 400 - 700 rpm
Spin-off speed 2	3 s @ 1200—1500 rpm
Pre-cure (lens temperature)	120 s @ 60—80° C
Thermal cure	4 h 110° C



CrystalChrome® HC

Spin Application
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SDC TECHNOLOGIES CONTACT INFORMATION

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CrystalChrome® is a registered trademark of SDC Technologies.

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EQUIPMENT PREPARATION

Equipment Cleaning: Coating equipment should be cleaned prior to use of CrystalChrome HC in order to avoid any possible contamination problems. Coating contamination can result in adhesion problems or general appearance 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 HC.

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

PRETREATMENT AND CLEANING OF SUBSTRATE

CrystalChrome HC is designed for use with CrystalChrome Photochromic coating system. Refer to the relevant CrystalChrome TDS's for recommended substrate preparation prior to coating with CrystalChrome HC.

SOLUTION MANAGEMENT

For optimum performance, CrystalChrome HC should be maintained in a % solids range of 23 - 25 %. 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-835A a 90/10 mixture of denatured ethanol and PM glycol ether. Denatured ethanol formulations that contain methanol, isopropanol and <1% water can be used.

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 HC 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 HC 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.

