



# Technical Data Sheet

## CrystalCoat® MP-2020B

### Multi-Purpose Abrasion Resistant Coating

#### DESCRIPTION

CrystalCoat® MP-2020B is a 1.49 refractive index abrasion resistant hardcoat.

#### FEATURES

- Abrasion resistance
- Refractive index of 1.49 ideally suited for 1.5 ADC cast resin substrates
- Compatible with all standard lens substrates
- AR compatible

#### STORAGE AND USE

The recommended storage temperature for MP-2020B is 4°C (40°F). When stored at this temperature in the original closed container, it is recommended to start use of MP-2020B within 3 months of the date received.

For extended periods of storage (3-6 months), MP-2020B should be stored at -18°C (0°F).

#### SOLUTION PROPERTIES

PROPERTY	TYPICAL VALUES
Solids	17.0 - 19.0 %
Viscosity @ 25°C	< 6.0 cP
Density @ 25°C	0.950 - 0.970 g/ml
Solvents: Water, Methanol, Ethanol, Isopropanol	

#### CURED COATING PROPERTIES

PROPERTY	TYPICAL VALUES
Coating Thickness	1.5 - 3.5 µm
Refractive Index	1.49
Bayer Ratio	≥ 5
Adhesion	100 %

#### RECOMMENDED OPERATING GUIDELINES

PROPERTY	TYPICAL VALUES
Environmental Conditions	20 - 25°C, 35 - 50% RH
Air Flow	Filtered, Laminar (Class 100)
Coating Temperature	16 - 18°C
Coating Filtration	1 - 5 µm absolute
Extraction Speed	1.3 - 2.5 mm/s
Dry Time/Temperature	5 - 10 mins with Infra-red
Cure Conditions Cast Resins Polycarbonate	2 - 4hrs @ 95 - 110°C 3hrs @ 129°C



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## SDC TECHNOLOGIES CONTACT INFORMATION

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Trivex® is a registered trademark of PPG.

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## EQUIPMENT PREPARATION

**Equipment Cleaning:** Coating equipment should be cleaned prior to use of MP-2020B 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 ethanol rinse. Ethanol should also be used for cleaning equipment after the use of MP-2020B.

**Equipment Materials:** All equipment surfaces that are exposed to MP-2020B should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with MP-2020B prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances with MP-2020B or other primers or coatings that contain glycol ethers.

## PRETREATMENT AND CLEANING OF SUBSTRATE

Prior to coating with MP-2020B, parts should be clean and free of any surface residues. Hard resin substrates such as ADC, should be etched with an aqueous solution of sodium or potassium hydroxide prior to application of MP-2020B. The substrate parts should be immersed in a 10-30% aqueous solution of sodium or potassium hydroxide at 25-50°C for 1 to 10 minutes. A suitable room temperature treatment can be carried out using a 10% KOH treatment for 15 minutes. Higher concentrations and higher temperatures can be used to reduce the time for treatment. Following the treatment, parts need to be thoroughly rinsed with de-ionized water to ensure the complete removal of any caustic residue.

The application of MP-2020B on polycarbonate requires the use of a primer. Application to Trivex® may require a primer for some applications. For information regarding application of MP-2020B to other substrates, please contact SDC.

## SOLUTION MANAGEMENT

For optimum performance, MP-2020B should be maintained in a solids range of 17 - 19%. Higher or lower solids may 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-320 or Ethanol. Denatured ethanol formulations that contain methanol, isopropanol and <1% water may 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 MP-2020B 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 MP-2020B 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.