



FormGard® 100

Thermoformable Abrasion Resistant Coating

DESCRIPTION

FormGard® 100 is a thermoformable abrasion resistant coating designed for flow coat application.

FEATURES

- Abrasion resistance
- Thermoformable to 5cm (2") radius
- Primer-free adhesion to Polycarbonate

STORAGE AND USE

The recommended storage temperature for FormGard 100 is 20 - 25°C. When stored at this temperature in the original closed container, it is recommended to start use of FormGard 100 within 6 months of the date received.

Some phase separation may occur when stored at or below 4 °C. If this occurs warm coating to 20 °C or above and mix thoroughly before use.

SOLUTION PROPERTIES

| PROPERTY | TYPICAL VALUES |
|--|------------------|
| Solids | 29 - 31% |
| Viscosity @ 25°C | ≤13 cP |
| Density @ 25°C | 0.95 - 0.98 g/ml |
| Solvents: PM Glycol Ether, PB Glycol Ether | |

CURED COATING PROPERTIES

| PROPERTY | TYPICAL VALUES |
|--------------------------------------|-------------------------------|
| Coating Thickness | 4.0 - 16.0 µm |
| Refractive Index | 1.52 |
| Adhesion | 100 % |
| Taber Abrasion 100 Rev 500 Rev | ≤ 8 Δ % Haze ≤ 28 Δ % Haze |
| Thermoformability (on 3mm sheet) | 5cm (2") Radius |

RECOMMENDED OPERATING GUIDELINES

| PROPERTY | TYPICAL VALUES |
|--------------------------|-------------------------------|
| Environmental Conditions | 20 - 25°C, 35 - 45% RH |
| Air Flow | Filtered, Laminar (Class 100) |
| Coating Temperature | 16 - 25°C |
| Coating Filtration | 1 - 5 µm absolute |
| Air Dry | 10 - 30 minutes |
| Cure Conditions | 2hrs @ 129°C |



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SDC TECHNOLOGIES CONTACT INFORMATION

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EQUIPMENT PREPARATION

Equipment Cleaning: Coating equipment should be cleaned prior to use of FormGard 100 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 FormGard 100.

Equipment Materials: All equipment surfaces that are exposed to FormGard 100 should be constructed of stainless steel, polypropylene or Teflon®. Other materials should be tested for compatibility with FormGard 100 prior to use. Materials made with polyvinyl chloride (PVC) should not be used under any circumstances with FormGard 100 or other primers or coatings that contain glycol ethers.

PRETREATMENT AND CLEANING OF SUBSTRATE

Polycarbonate parts to be coated should be free of particulates and other surface contamination before application of FormGard 100. Use of antistatic air blowers is highly recommended to achieve optimal appearance of coated parts. Spot cleaning with IPA is recommended for removing of oils and other contaminants which cannot be removed with antistatic air blowers.

SOLUTION MANAGEMENT

For optimum performance, FormGard 100 should be maintained in a solids range of 29 - 31%. 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 a change in solids due to evaporation over time should be controlled by the addition of a 9:1 mixture of PM Glycol ether and PB Glycol Ether (SM805).

If the coating requires dilution below the recommended solids range, use a 11/9 mixture of PM Glycol ether and PB Glycol Ether (SM800).

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 FormGard 100 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 FormGard 100 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.