SilFORT* PHC XH100 clear coat

Description
SilFORT PHC XH100 is a thermally cured siloxane clear coat that promotes adhesion to various types and grades of transparent, colored or filled Polycarbonate (PC). It can provide an excellent abrasion and chemically resistant layer to help prevent coated articles from excessive wear while in service.

Key Features and Typical Benefits
- Good clarity
- Excellent abrasion and mar resistance
- Good solvent/chemical resistance
- Primerless adhesion to many grades of PC
- Single coating process
- Easy to clean surface

Potential Applications
SilFORT PHC XH100 clear coat can protect various types and grades of transparent, tinted, coloured or filled PC articles from chemical or mechanical damage. Potential applications include the use in highly exposed wear-and-tear items in the consumer market, like frames, sheets, trays, beakers, cups, covers or even vacuum metalized surfaces.

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids Content, % by weight</td>
<td>approx. 25.5</td>
</tr>
<tr>
<td>Solvents</td>
<td>1-Butanol, 2-Propanol3</td>
</tr>
<tr>
<td>Flash Point (Penske Martens, Closed Cup)</td>
<td>19.4 °C</td>
</tr>
<tr>
<td>Density, g/cm³ @ 20 °C</td>
<td>approx. 0.93</td>
</tr>
</tbody>
</table>

*SilFORT is a trademark of Momentive Performance Materials Inc.
**Typical properties are average data and are not to be used as or to develop specifications.**

**Tests on Transparent PC (thickness approx. 6 μm; Cure: 30 min @ 130 °C)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taber Abrasion 1</td>
<td>500 cycles</td>
</tr>
<tr>
<td></td>
<td>1000 cycles</td>
</tr>
<tr>
<td>Water Immersion 2</td>
<td></td>
</tr>
</tbody>
</table>

Note: Test data. Actual results may vary.

- 1Taber Abrasion Test with 500g load CS10F (Gen. IV) wheels at 500 cycles. Haze % measured per ASTM D1003. Higher haze indicates greater abrasion. Humidity during coating and Taber wheel variability will affect final values.
- 2Temperature = 65 °C followed by cross hatch tape pull adhesion. Result: GT0 (according to EN ISO 2409).
- 3Other solvents upon request.
- 4If it is required to achieve a Taber Abrasion resistance of ≤ 2% Haze after 1000 cycles, extended cure times of ≥60 minutes may be applied.

**General Considerations for Use**

Refrigeration between 2 and 10 °C is required for storage of SilFORT PHC XH100 clear coat. Extended storage may be considered if the material is stored at temperatures below 2 °C.

Before use, allow the product to return to room temperature (>15°C) in original container. Then vigorously stir it to re-constitute any materials that may have separated. After air bubbles have dissipated, the solution should appear homogeneous.

For adequate protection from airborne particles, the coating area should be of clean room class ±7 acc. to ISO 14644-1 and being adequately ventilated. If necessary, parts may be washed or wiped with appropriate cleaning agents followed by a proper rinsing step and an ionized-air blow-off. During usage, the coating solution should be filtered just prior to coating application methods. A
2-stage filtration to approximately 0.5 to 1.0 micron, using a 5 to 8 micron pre-filter is recommended.

Coating application methods include flow, spray, dip or spin processes.

After an ambient flash off at 20 - 30 °C @ 30 - 60% relative humidity for a minimum of 2 minutes (ideally until the applied coating is tack-free), the film should be cured using an electric or indirect gas-fired oven with good temperature distribution and air exchange rate.

The recommended minimum cure conditions are 30 minutes at ≥ 128 °C part surface temperature. Parts with higher wall thickness may require longer cure times. Prolonged cure times, as well as higher cure temperatures, can be considered to further enhance abrasion resistance and promote other performance criteria. For an optimum performance, a dry film thickness of ≥6 μm is recommended.

*SilFORT is a trademark of Momentive Performance Materials Inc.

Packaging

25 kg Steel Pail with PE liner (SAP# 109645) 180 kg Steel Drum with PE liner (SAP# 108871)

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-
the-clock emergency service for its products. MSDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

**Limitations**

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

From automotive to healthcare, from electronics to construction, products from Momentive Performance Materials Inc. are practically everywhere you look. We are a global leader in silicones and advanced materials with a 70+ year heritage of innovation and being first to market – with performance applications that improve everyday life. By knowing our customers’ needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

**Contact Information**

For product prices, availability, or order placement, contact our customer service by visiting www.momentive.com/Contacts. For literature and technical assistance, visit our website at: www.momentive.com

**Email**

4information@momentive.com

**Telephone**

**Americas**

+1 800 295 2392

*SilFORT* is a trademark of Momentive Performance Materials Inc.
Europe, Middle East, Africa and India
+00 800 4321 1000
+40 212 534754

Asia Pacific
China
+800 820 0202

Japan
+81 276 20 6182

All Other Countries
+60 3 9206 1543

To find a specific language, visit the Contact Us page at Momentive.com. You may select a country to view additional languages and the corresponding telephone numbers. For email inquiries, we will make every attempt to respond in the incoming written language. If that is not possible, we will respond in English.

DISCLAIMER:
The information provided herein was believed by Momentive Performance Materials Inc. (collectively with its subsidiaries, “Momentive”) to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product, and to determine the suitability of the product for user’s intended application or use. All products supplied by Momentive are subject to Momentive’s standard terms and conditions of sale. MOMENTIVE MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING

*SilFORT is a trademark of Momentive Performance Materials Inc.
THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY MOMENTIVE, except that the product shall conform to Momentive’s specifications. Nothing contained herein constitutes an offer for the sale of any products.

*SilFORT is a trademark of Momentive Performance Materials Inc.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.

Contact Information
For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

For literature and technical assistance, visit our website at: www.momentive.com

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER’S STANDARD CONDITIONS OF SALE,
SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier’s materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier’s products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier’s standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*SilFORT is a trademark of Momentive Performance Materials Inc.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.