

SilFORT™ FHC615 Hardcoat

Description

SilFORT FHC615 thermally cured, thermoformable hardcoat can help protect plastic substrates used in exterior applications. It is an excellent candidate to consider for formable applications where superior weathering and abrasion resistance combined with chemical resistance is required. SilFORT FHC615 hardcoat is supplied as a single component lacquer in a blend of mild glycol-ether solvent and isopropyl alcohol. It is typically used with a primer such as SHP401 to improve adhesion, especially to plastic substrates such as Polycarbonate, PMMA, PET, etc.

Key Features and Typical Benefits

- Thermoformable
- Transparent
- Protection of high quality optical parts such as windshields & visors
- Provides easy-to-clean properties
- Adhesion to many plastic substrates with the use of a primer
- High chemical resistance
- Easy to recycle
- Application by spray, dip, roller and flow
- Superior weatherability

Typical Physical Properties

| | Unit | Typical Value |
|------------------|------|------------------------|
| Physical Form | - | liquid |
| Appearance | - | Clear, slightly yellow |
| Solids Content | % | 15-19 |
| Carrier Solvents | - | 1-Methoxy-2-Propanol |
| | - | Isopropyl Alcohol |

| | | |
|----------------------------------|-------------------|----------------|
| Kinematic Viscosity | CSt | 4.0-4.8 |
| Density (@25°C) | Kg/m ³ | 941.9-972.9 |
| Abrasion Resistance ¹ | D haze in % | < 15 |
| Water Soak Adhesion ² | - | >240hrs @65 °C |

¹ Typical performance per ASTM D1044

² Adhesion verified per ASTM D3359

Typical properties are average data and are not to be used as or to develop specifications.

Potential Applications

Applications where a combination of formability, abrasion resistance, chemical, and weathering resistance is important

Processing Considerations

Areas where coated, wet parts are handled should be clean and dust-free (Class 1,000 acc. to US Federal Standard 209e or class <6 acc. to ISO 14644-1). If necessary, parts should be washed or wiped clean with an appropriate solvent (eg. Isopropyl Alcohol) followed by an ionized air blow off. Cleanliness is critical for the production of good parts. Both topcoat and primer solutions should be filtered continuously through a 5 to 8 micron pre-filter followed by a gel-filter of <1 micron.

For curing, electric or indirect, gas-fired ovens with good convection and air exchange with an overall temperature variation of +/- 2 °C are recommended.

Packaging

5 Gallon Pail

55 Gallon Drum

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 Safety Data Sheet (SDS) 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. SDS 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.

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