

SilFORT™ MHC2700 Clearcoat

Description

SilFORT MHC2700 Clearcoat is a thermally cured siloxane-based primerless hardcoat system used to protect glossy, matte, and colored anodized aluminum substrates against corrosion, chemicals and scratches. It offers excellent acid and alkali resistance in the range of pH 1.0 to 13.5, while maintaining the desired appearance of the substrate.

This direct-to-metal sol-gel coating system can generally be applied by either spray, dip, or flow coating, allowing for greater design freedom. Curvatures, radii and orifices can typically be managed in the coating process without making any design compromises. For brushed or matte surfaces, the gloss-level can be adjusted according to the desired optical appearance and structure of the surface by the incorporation of Momentive's SilFORT MHC Matte additive.

Key Features and Typical Benefits

- Direct-to-metal / primerless adhesion to anodized aluminum
- Exceptional pH resistance (pH 1.0 to >13.5)
- Excellent corrosion resistance
- Excellent scratch resistance
- Excellent chemical resistance
- Wide application window

Typical Physical Properties

Property ⁽¹⁾	Unit	SiIFORT MHC2700 Clearcoat
Physical Form	-	Liquid
Color	-	Milky white
Solids Content	%	Approx. 25
Density (@ 25°C)	g/cm ³	0.93
Kinematic Viscosity (@ 25°C)	cSt	Approx. 5.5
pH	-	Approx. 5
Shelf Life ⁽²⁾	Days	180 (stored below 10°C)

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

2. From date of manufacture.

Potential Applications

- Exterior automotive parts made from anodized aluminum (e.g. window trim, roof rails)
- Interior automotive parts made from anodized aluminum
- Glossy, matte or colored substrates

General Considerations for Use

	SiIFORT MHC2700 Clearcoat
Application Method	Spray, flow, dip
Reducing Solvents ⁽³⁾	1-Butanol (CAS# 71-36-3) 2-Propanol (CAS# 67-63-0)
Recommended Coating Thickness ⁽⁴⁾	4 – 6 µm

3. If necessary for application process, other suitable solvents may be considered.

4. Other thicknesses can be considered but may affect performance.

SiIFORT MHC2700 Clearcoat is a cross-linking product, sensitive to extended exposure to elevated temperature. Storage at lower temperatures (< 0°C) may increase typical shelf-life beyond 3 months.

Once the product has reached ambient temperature it should be used within 7 days. Re-refrigeration to less than 10°C should be considered when product will not be used within 24 hours.

For a particle-free surface, components should be processed in a climate-controlled

cleanroom environment that complies with ISO14664-1, equal to or lower than class 6. Before applying any coating, part surface temperature should be <35°C.

For more detailed guidance on the use of SilFORT MHC2700 Clearcoat, please request the accompanying Processing Guide from your local Momentive representative.

Packaging

Products are currently available in:

- 25 kg Steel Pail with PE liner
- Other packaging sizes available upon request

Patent Status

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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.

Contact Information

Email

commercial.services@momentive.com

Telephone

Americas	Latin America	EMEAI- Europe, Middle East, Africa & India	ASIA PACIFIC
+1 800 295 2392 Toll free* +704 805 6946 Direct Number	Brazil +55 11 4534 9650 Direct Number	Europe +390510924300 Direct number	China 800 820 0202 Toll free +86 21 3860 4892 Direct number
All American countries	Mexico +52 55 2169 7670 Direct Number	India, Middle East & Africa + 91 44 71212207 Direct number *All Middle Eastern countries, Africa, India,	Japan +81 3 5544 3111 Direct number Korea +82 2 6201 4600

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

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