

SilFORT™ Hardcoats

Enabling Plastics, Enabling Innovation

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SilFORT hardcoats offer customers the ability to replace glass and metal with polymeric substrates in a number of demanding applications. SilFORT products can be used to extend the long-term exterior durability and performance of polymers by helping them maintain their color, gloss, light transmission and physical properties while enhancing their weatherability and resistance to abrasion, chemicals and solvents.

All over the world, SilFORT hardcoat technology is enabling the innovative use of plastic materials in a variety of industries. In the transportation sector, hardcoat-protected plastics can be found in automotive lighting, glazing, exterior trim, interior parts and displays, providing light weight and design flexibility and paving the way for multiple applications in the fuel efficient automobiles of the

future. In architectural applications, hardcoated plastic materials are contributing to energy efficiency and safety. In hand-held mobile devices and display technologies, where both light weight and durability are critical factors, plastics with hardcoat technology are finding their way into touchscreen applications.

The SilFORT portfolio of products brings together more than two decades of advanced, patent-protected hardcoat technology developed by Momentive. In addition, Momentive's highly trained application support team is available to help customers select the optimum products for their needs and develop the application process for achieving best performance. To learn more, please visit momentive.com/SilFORT.

Key Features and Typical Benefits

- Long-term weatherability
- High scratch and abrasion resistance
- Superior chemical and solvent resistance
- Excellent gloss protection
- Enhanced signal transmission
- Easier to clean

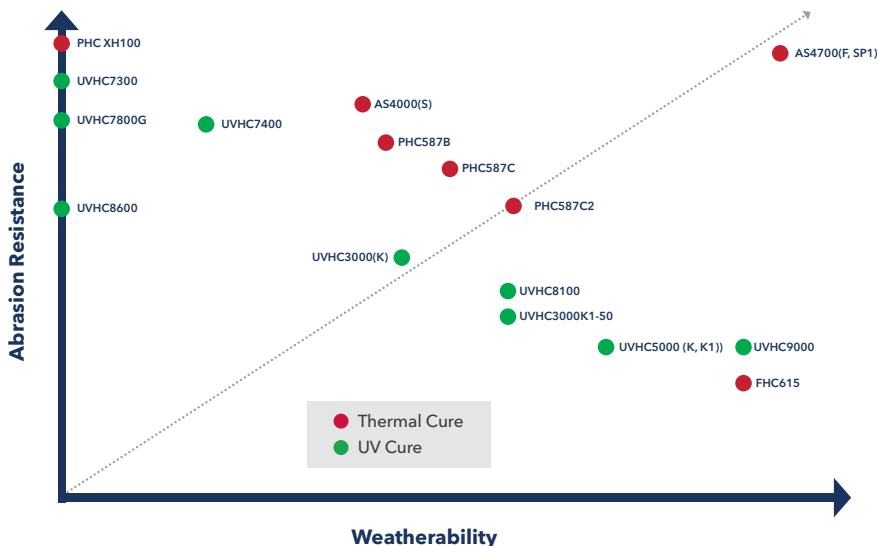
Two Cure System Expands Plastic Protection

Our Silicones business is committed to the development of thermal cure hardcoats and UV cure hardcoats, bringing the advantages of silicone hardcoat to a broader range of plastic products. The technology choice depends on key factors such as geometry of the part, substrate material, the product end-use, and other process or downstream considerations. Drawing on extensive application experience, our technical staff can help customers decide on the coating and curing methods that will meet their needs.

Application Methods

We offer a comprehensive line of silicone hardcoats that can be applied by different application methods, such as dip, flow, spray or digital inkjet printing. They can be considered for use with extruded parts, sheet materials or molded products.

SilFort Hardcoats: Performance on Polycarbonate



HARDCOATS - PRODUCT AND APPLICATION SELECTOR

Application	Thermal Cure	Thermal Cure-Primerless	UV Cure	Thermal Cure	UV Cure
	With UV Protection			Without UV Protection	
AUTOMOTIVE					
Headlamps	SiIFORT AS4700(F) SiIFORT AS4700-SP1	SiIFORT PHC587C SiIFORT PHC587C2	SiIFORT UVHC3000 SiIFORT UVHC3000K1-50 SiIFORT UVHC5000 SiIFORT UVHC5000K	SiIFORT PHC XH100P	
Exterior Parts	SiIFORT AS4700(F) SiIFORT AS4700-SP1 SiIFORT FHC615	SiIFORT PHC587C SiIFORT PHC587C2	SiIFORT UVHC5000 SiIFORT UVHC5000K SiIFORT UVHC5000K1	SiIFORT PHC XH100P	
Interior Parts, Displays		SiIFORT PHC587B SiIFORT PHC587C	SiIFORT UVHC3000 SiIFORT UVHC3000K SiIFORT UVHC7400	SiIFORT PHC XH100 SiIFORT PHC XH100P	SiIFORT UVHC7300 SiIFORT UVHC7800G SiIFORT UVHC8600
INDUSTRIAL AND CONSUMER GOODS					
Sheet	SiIFORT AS4000(S) SiIFORT AS4700(F) SiIFORT FHC615	SiIFORT PHC587C SiIFORT PHC587C2	SiIFORT UVHC3000 SiIFORT UVHC3000K SiIFORT UVHC5000 SiIFORT UVHC9000	SiIFORT PHC XH100 SiIFORT PHC XH100P	
Films	SiIFORT AS4000 SiIFORT FHC615		SiIFORT UVHC3000 SiIFORT UVHC3000K SiIFORT UVHC5000 SiIFORT UVHC8100		SiIFORT UVHC7300 SiIFORT UVHC7800G SiIFORT UVHC8600
Molded Parts	SiIFORT AS4000 SiIFORT AS4700	SiIFORT PHC587B SiIFORT PHC587C SiIFORT PHC587C2	SiIFORT UVHC3000 SiIFORT UVHC5000	SiIFORT PHC XH100 SiIFORT PHC XH100P	SiIFORT UVHC7300
OPTICAL PARTS					
Safety Glasses, Visors, Ophthalmics		SiIFORT PHC587B SiIFORT PHC587C SiIFORT PHC587C2	SiIFORT UVHC3000 SiIFORT UVHC3000K SiIFORT UVHC7400	SiIFORT PHC XH100	SiIFORT UVHC7300 SiIFORT UVHC8600

TYPICAL PHYSICAL PROPERTIES

Thermal Cure	Solids %	Key Features and Typical Benefits
SiIFORT AS4000(S)	20	Weatherable, scratch resistant
SiIFORT AS4700(F)	25	Highly weatherable, highly scratch resistant, easy-to-clean, designed for black and transparent PC
SiIFORT AS4700-SP1	23	Ready-to-use spray version, designed for black and transparent PC
SiIFORT FHC615	17	Formable, weatherable, scratch resistant
SiIFORT PHC587B	25	Weatherable, higher scratch resistant, easy-to-clean, easy-to-apply
SiIFORT PHC587C	25	Higher weatherability, scratch resistant, easy-to-clean, easy-to-apply
SiIFORT PHC587C2	25	Highly weatherable, scratch resistant, easy-to-clean, easy-to-apply
SiIFORT PHC XH100	25	Highly scratch resistant, easy-to-clean, easy-to-apply, designed for PC
SiIFORT PHC XH100P	25	Highly scratch resistant, easy-to-clean, easy-to-apply, designed for PMMA

UV Cure	Solids %	Key Features and Typical Benefits
SiIFORT UVHC3000	45	Weatherable, scratch resistant
SiIFORT UVHC3000K	45	Weatherable, scratch resistant, climate-cycle adhesion improved
SiIFORT UVHC3000K1-50	50	Higher weatherability, scratch resistant, climate-cycle adhesion improved
SiIFORT UVHC5000	45	Highly weatherable, scratch resistant, designed for transparent PC
SiIFORT UVHC5000K	55	Improved adhesion, fast cure response, designed for transparent PC
SiIFORT UVHC5000K1	50	Mild solvent composition, fast cure response, designed for transparent PC
SiIFORT UVHC7300	60	Highly scratch resistant, low UV-energy-cure system, easy-to-clean
SiIFORT UVHC7400	60	Weatherable, highly scratch resistant, low UV-energy-cure system, easy-to-clean
SiIFORT UVHC7800G	60	High hardness, scratch resistant, easy-to-clean, low UV-energy-cure system
SiIFORT UVHC8100	100	Weatherable, scratch resistant, solvent free
SiIFORT UVHC8600	100	Scratch resistant, solvent free
SiIFORT UVHC9000	50	Highly weatherable, scratch resistant, designed for digital inkjet printing

Typical physical properties are from data that has been averaged and should not be used as, or to, develop product specifications.



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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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