CLEARSHIELD®
WPF
WINDSHIELD PROTECTION FILM

Care & Maintenance of Clearshield Windshield Protection Film (WPF)

INTRODUCTION

To ensure the longevity and optimal performance of your exterior windshield protection film, proper care and maintenance are essential.

INITIAL APPEARANCE

It is unlikely, but possible, to see a “haziness” or “fogginess” in the film immediately after installation. This is the result of a minute amount of moisture left under the film after installation.This is normal and should not be a matter of concern. This will disappear in a few days, depending on weather conditions.

REGULAR CLEANING

- Rinse the surface thoroughly with water before applying any cleaning solutions to prevent damage from large dirt particles.
- Clean the film regularly using a simple solution of a mild soap and water solution.
- Avoid harsh chemicals, ammonia-based cleaners, or abrasive scrubbing pads, as these can degrade the film.
- Use a soft microfiber cloth or sponge to gently wipe the surface.
- Avoid using abrasive materials such as aggressive towels, brushes, or scrapers on the film.

AVOID USING WINDSHIELD WIPERS ON A DRY WINDSHIELD

- Windshield wipers should only be used on a wet surface to prevent scratching or damaging the film.
- Always spray a soap and water solution or use your vehicle’s windshield washer fluid before activating the wipers.

IMPORTANT! For dealers and users: Please check local regulations before applying this product.

PROTECTION

To maintain the film's visual properties and durability, apply an approved **Solar Gard Windshield Protection coating[1] every couple of months.**

Application Steps:

- Rinse the surface thoroughly with water before applying any cleaning solutions
- Wash the windshield with a mild soap and water solution and dry it completely with a microfiber towel.
- Use an applicator pad or microfiber cloth to spread a thin, even layer of the Solar Gard-approved coating over the film.
- Let the coating sit for the recommended time according to the product instructions.
- Use a clean dry microfiber towel to gently buff away any excess product, ensuring a smooth, streak-free finish.
- Regular application of this coating enhances the film's resistance to contaminants and makes cleaning easier.

ICE & SNOW REMOVAL PRECAUTIONS

Avoid using ice scrapers, as they can scratch or damage the film.

- **Use a de-icing spray or warm (not hot) water** to soften the ice before manually removing it with a soft cloth or gloved hand.

CAUTION: Do not pour boiling or excessively hot water on the windshield, as this may cause thermal shock and damage the film or glass.

- If necessary, turn on your vehicle's defrost function to gradually loosen ice buildup.

By following these care and maintenance guidelines, you can extend the life of Clearshield windshield protection film and maintain its clarity, performance, and durability. For additional questions or recommended maintenance products, contact **Solar Gard customer support.**

[1] **Solar Gard Windshield Protection coating** is available through any Solar Gard authorized dealer.

PERFORMANCE DATA

	Test Item	Test Method	Nominal Value
SOLAR PERFORMANCE	Visible light transmittance (%)	NFRC Methodology	89
	Visible light reflectance (%)	NFRC Methodology	8
	Ultraviolet light blocked (300 to 380 nanometers) (%)	NFRC Methodology	>99
	Total solar energy rejected (%)	NFRC Methodology	24
PHYSICAL PROPERTIES	Cap sheet	Micrometer	1.25 mil (32 micron)
	TPU thickness	Micrometer	7 mil (175 micron)
	Product thickness (TC+TPU+PSA)	Micrometer	8 mil (200 micron)
ADHESION	Initial Peel Adhesion	Film applied dry, cured for 20 min at 72°F (22°C)	1,900 g/in (7.3 N/cm)
		Film applied wet, cured for 20 min at 72°F (22°C)	1,700 g/in (6.5 N/cm)
	After heat age peel adhesion	Adhered to paint panel, 3min at 248°F (120°C)	3,000 g/in (11.5 N/cm)
AGING TEST	Heat aging	Adhered to GLASS panel, 248°F (120°C) for 3 MIN	Pass, NDE
ABRASION RESITANCE	Tabor abrasion resistance	ASTM D1044 / D1003	< 3%
	Windshield wiper test	ECE R43 / ASTM D1003[1]	< 1%
IMPACT RESISTANCE	Chip resistance	SAE J400 (Gravelometer) up to 70 psi	Pass, >8A[2]
CHEMICAL RESISTANCE	Soap & water	Samples submerged in chemical for 24 hrs followed by visual inspection	Pass, NDE
	Isopropyl alcohol		Pass, NDE
	Windshield washer fluid		Pass, NDE

1 The wiper test follows the ECE R43 method using a BYK Gardner Scrub instrument to assess material durability. The test runs 5000 cycles at 60 cycles per minute with ISO 12103-1, A4 Course Test Dirt. After scrubbing, optical performance is evaluated via ASTM D1003 using the Haze-Gard I instrument to measure transmission, haze, and clarity.

2 A rating of 8A or better indicates no more than 4 chips of less than 1mm in size (equivalent of the tip of a sharp pencil).

TC = Top Coat, TPU = Thermal Plastic Polyurethane, PSA = Pressure-Sensitive Adhesive

Adhesion: 180° peel on Instron tensile tester.

Tabor abrasion: Specimens are subjected to 100 cycles with 500g weight followed by haze measurement.

NDE: no detrimental effect

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The best protection you'll never see.

www.solargard.eu/WPF

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