



# CLEARSHIELD<sup>®</sup> PRO HYDRO

PAINT PROTECTION FILM

## Clearshield<sup>®</sup> Pro Hydro Technical Data Sheet

### The next generation in paint protection film

Solar Gard's Clearshield Pro Hydro is a virtually invisible paint protection film that protects your vehicle's paint from damages of everyday driving, maximizing your vehicle's re-sale value.

#### FEATURES:

- Advanced hydrophobic low surface energy coating
- Thick, virtually invisible high grade polyurethane barrier
- Highly formable material makes it easy to wrap edges, bumpers and mirrors reducing seams and relief cuts
- Available in a wide range of widths for large applications like full hoods
- Waste-saving blue contrast liner makes it easy to see cut lines, helping to save time, material and money
- High gloss with smooth surface

#### WARRANTY:

Clearshield Pro Hydro delivers superior protection with a 10-year limited manufacturer's warranty, that the film:

- Will remain optically clear and stay in place
- Won't crack, peel, or bubble
- Warrantied against yellowing and other manufacturer defects

#### BENEFITS:

- Advanced hydrophobic coating - increased anti water spotting properties to maintain the perfect finish for years
- Self-healing - Film heals itself from common light surface scratches and swirl marks that occur during routine car washing
- Protects surfaces from damage caused by gravel, sand, stones, road salt and insects
- Best-in-class stain resistance - low surface energy makes it difficult for organic compounds to stick to the film
- Easy maintenance - wash and dry. No wax needed to protect film finish
- High gloss surface and optical clarity allows original paint color to shine through
- In the unlikely event that the product is damaged, it can be easily peeled away exposing undamaged factory paint like the day Clearshield Pro Hydro was installed



Now more than ever, it is important that vehicles look new longer to hold resale value and keep the vehicle in style. Clearshield Pro Hydro; the best protection you'll never see!

	TEST ITEM	TEST METHOD	NOMINAL VALUE
PHYSICAL PROPERTIES	TPU thickness	Micrometer	6 mil (150 microns)
	Product thickness (HC+TPU+PSA)	Micrometer	8 mil (200 microns)
	Release liner thickness	Micrometer	3 mil (75 microns)
	Tensile strength at break	ASTM D882	6,800 lbs./in <sup>2</sup> (478 kg/cm <sup>2</sup> )
	Elongation at break	ASTM D882	400%
	Break strength	ASTM D882	54 lbs./in (95 N/cm)
ADHESION	Gloss	Adhered to paint panel. 60° gloss per ASTM D523	90 GU
	Initial dry peel adhesion	Dry Adhered to paint panel, 20 min at 72°F (22°C)	1,100 g/in (4.3 N/cm)
	Initial wet peel adhesion	Dry Adhered to paint panel, 20 min at 72°F (22°C)	1,100 g/in (4.3 N/cm)
	After heat age peel adhesion	Adhered to paint panel, 3min at 248°F (120°C)	>2100 g/in (8.2 N/cm)
	Adhered state shrinkage	Adhered to paint panel for 48hrs at 176°F(80°C)	< .02%
AGING TEST	Accelerated weathering	ASTM G155 Cycle 7, 3,000 hrs	Pass, NDE
	Heat Aging	Adhered to paint panel, 176°F(80°C) for 16 days	Pass
IMPACT RESISTANCE	Chip resistance	SAE J400 (Gravelometer)	Pass, no ruptures
CHEMICAL RESISTANCE	Soap & water	Samples submerged in chemical for 30 minutes followed by visual inspection in 24 hrs.	Pass, NDE
	White vinegar		Pass, NDE
	Motor oil		Pass, NDE
	Acetone		Pass, NDE
	IPA		Pass, NDE
STAIN RESISTANCE	Sharpie Marker	Lines were drawn on the film with a permanent Sharpie marker. Each line was wiped with a dry towel at 5, 15 min and 24 hr intervals.	No Visual Residue
	Tea	Sample was submerged in tea solution for periods of 5, 15 min and 24 hrs. Samples were removed and wiped with a dry towel.	No Visual Residue

HC = Hard Coat, TPU = Thermal Plastic Polyurethane, PSA = Pressure Sensitive Adhesive

Adhesion: 180° peel on Instron tensile tester

NDE: No Detrimental Effect

**Note: all values are nominal values and should not be used for specification purposes**

#### Shelf life:

Solar Gard recommends using Clearshield Pro Hydro within one year from date of purchase.

Optimum storage conditions for Clearshield Pro Hydro are 40°F (4°C) to 90°F (32°C), and 40% to 60% relative humidity.

[www.solargard.com](http://www.solargard.com)

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