ENGINEERED SURFACE PROTECTION

SECURA TPU

PAINT PROTECTION FILM / 3 YEAR FILM

BUILT TO PRESERVE THE FINISH

Essential transparent TPU protection combining paint-surface defence, self-healing performance and ease of installation.

PRODUCT SPECIFICATION

FILM CONSTRUCTION	6.5–7.0 mil (165.1–177.8 µm) applied thickness
SURFACE FINISH	Gloss
ADHESIVE	Ashland adhesive (as stated in supplied technical report)
ROLL FORMAT	1.52 m × 15 m / 1.83 m × 15 m (as stated in supplied technical report)
APPLICATION	Automotive paint-surface preservation

AUTOMOTIVE AESTHETIC PRESERVATION

MANUFACTURED IN KOREA

SECURA PPF • Singapore Headquarters: 3 Jervois Close, #02-07, One Jervois, Singapore 249099

- Surface resistance to common contaminants such as insects, road grime and environmental fallout.
- Designed to support long-term finish presentation with appropriate installation and maintenance.

Basic Properties	Test Method	Test Standards	unit	Test Results
color	Visual inspection	Colorless and transparent	/	Colorless and transparent
Product Performance	Visual inspection	No debris, smooth film surface, no coating lines and coating bubbles, no tension marks and water ripples when winding	/	Meet the Standard
Debris points, crystal points	Visual	0.6mm or less	Pcs/m2	Meet the Standard
		: Not allowed to be dense		Meet the Standard
		0.6mm ~ 1mm:≤6		Meet the Standard
		>1mm： 0		
Totally Thickness	GB/T 6672-2001, Use Thickness Gauge to Measure	185±5	μm	186
Thickness of coating	GB/T 6672-2001, Use Thickness Gauge to Measure	10±2	μm	10
Thickness of TPU	GB/T 6672-2001, Use Thickness Gauge to Measure	150±5	μm	147
Thickness of adhesive	GB/T 6672-2001, Use Thickness Gauge to Measure	30±2	μm	29
Thickness of upper PET protective film	GB/T 6672-2001, Use Thickness Gauge to Measure	50±2	μm	52
Thickness of liner PET protective film	GB/T 6672-2001, Use Thickness Gauge to Measure	75±3	μm	87
Glossy Rate	QC/T 1171-2022 as specified in Section 6.4 , Chapter 6.4 mentions that GB/T 9754 specifies testing under 60 ° geometric conditions.	⩾90	/	98.6
Width	tape measure	1.52±0.01/1.83±0.01	m	1.52
Length	Meter	15	m	15
TPU haze	Haze meter	⩽3	%	0.8
Light transmittance	Pasted on float glass	⩾90	%	90↑
UV Blocking	LS182 Tester	>90	/	98.1
Elongation at break	QC/T 1171-2022, Industry Standard: Requirements for elongation at break refer to Section 6.7; tear strength shall not be less than 150%.	⩾150	%	320
Tape peeling		ΔE*ab < 2	/	0.16

	provided in GB/T 2792-2014			
Hydrophilicity	Shuangjie Marker Oil Pen Stroke Line	Hydrophobic/Hydrophilic	/	Hydrophilic
Antifouling	Apply with Shuangjie marker pen and wipe with alcohol after drying	Is there any mark left?	/	No residue
Restorative	Scratches at around 70℃ hot water or hot air	100% self-healing	/	100% self-healing
Scratch resistance	Special copper brush with a load of 500g/in, scraped 1000 times	After heat repair, the membrane surface is not damaged	/	No damaged
Temperature resistance	After the sample is kept in an environment with a temperature of 80±2℃ for 24 hours, it is allowed to recover at room temperature for 2 hours; then the sample is kept in an environment with a temperature of -20±2℃ for 24 hours.	No cracks, turbidity, bubbles, or discoloration	/	No abnormality
Tear strength	QC/T1171-2022,Industry Standard: Refer to Section 6.8 for tear strength requirements. Tear strength shall not be less than 40N.	⩾40	KN/m	85.1
Tensile strength	QC/T1171-2022,Industry Standard: Refer to Section 6.7 for tear strength requirements. Tear strength shall not be less than 15 MPa.	>15	Mpa	23.7

Note: The total thickness of the finished film is the sum of the thickness of the TPU, coating and adhesive layers.
The elastic modulus test has been cancelled, and only the original film state test of new products is conducted because the adhesive and coating have a greater impact and are not of quality guidance value.

The QUV aging test duration is 1000h.
The QUV UV aging test chamber uses UVA-340 (which best matches the UV spectrum of sunlight 295–365 nm) and is tested at 60°C for 1000 hours, equivalent to 12 outdoor months. The result is $\Delta YI \leqslant 5$. The daily transparent PPF test duration is verified by a large amount of data, and ASTM G154 guides that $\Delta YI \leqslant 5$ after 1000 hours is the normal level.

Warranty Condition :

Durability:

PRODUCT CARE & WARRANTY GUIDANCE

Protect the film. Preserve the finish.

INSTALLATION & INITIAL CARE

1. Allow the film to settle after installation. Avoid washing the vehicle for the first 48 hours.
2. For the first few days, avoid high-speed driving and exposure to heavy rain where practical.
3. Do not direct high-pressure water at film edges. Use a gentle wash method and a clean, soft wash mitt.
4. Avoid abrasive tools, harsh chemicals and products that may stain or damage the film surface.
5. Remove stubborn contaminants promptly with a film-safe cleaning product and a soft microfiber towel.
6. If edge lifting, corner movement or unusual surface changes appear, contact the installing specialist for inspection.

FILM REMOVAL

Film removal should be carried out by a trained installer using controlled heat and suitable tools. Avoid sharp tools contacting the vehicle's paintwork. If removal is required, consult the installation specialist for a paint-safe procedure.

WARRANTY & TECHNICAL INFORMATION

The product term shown on this report identifies the SECURA PPF film range. Actual warranty coverage, exclusions, claim requirements and remedies are governed by the applicable SECURA PPF warranty certificate and the terms issued at purchase. Retain the purchase and installation records.

TECHNICAL DATA NOTE

Technical measurements and test results on pages 2–3 are reproduced from the supplied product reports. They are presented as supplied and have not been independently retested or certified by this document.