



PAINT PROTECTION FILM

Gloss

Model: BGG152G

Type:	TPU-based PPF, high-gloss finish
Thickness:	192 µm (7.5 mil)
Finish / Gloss:	High Gloss · ≥ 140 GU
Standard:	QC/T 1171-2022

2026

TECHNICAL DATASHEET

Bodyguard Gloss — High-Gloss Paint Protection Film

Document No.: BG-TDS-BGG152G-2026 · Revision 1.0 · Date: 2026-07-16

Product Overview

Bodyguard Gloss BGG152G is a thermoplastic polyurethane (TPU) based paint protection film engineered for strong gloss retention and durable surface defence. It pairs high optical clarity with self-healing performance and excellent mechanical strength, making it a dependable choice for everyday and high-end automotive protection.

Key Advantages

- High-gloss finish (≥ 140 GU) for a clear, deep shine
- Self-healing top coat — minor scratches recover within 1 minute with heat
- Superior surface anti-permeability — resists marker and chemical staining
- Exceptional adhesion strength: $\sim 2,200$ gf/inch after 24 hours
- Outstanding elongation ($\sim 460\%$) for complex contour wrapping

Physical Properties

Parameter	Test Method	Specification	Unit	Typical Value
Glossiness	QC/T 1171-2022	≥ 140	GU	144
Total Film Thickness	GB/T 6672-2001	$192 \pm 5\%$	μm	~ 190
Surface Anti-Permeability	Internal Method	Faint marks / trace-free	—	PASS
Self-Healing	Internal Method	Partial repair within 1 min	—	PASS

Mechanical Properties

Parameter	Test Method	Specification	Unit	Typical Value
180° Peel Strength (20 min)	GB/T 2792	≥ 600	gf/inch	$\sim 1,500$
180° Peel Strength (24 h)	GB/T 2792	$\geq 1,000$	gf/inch	$\sim 2,200$
Coating Elongation at Break	GB/T 1040	≥ 80	%	~ 180
Tensile Strength	GB/T 1040	≥ 15	MPa	~ 30
PPF Elongation at Break	GB/T 1040	≥ 200	%	~ 460
100% Elasticity Modulus	GB/T 1040	≤ 10	MPa	~ 7

Performance Highlights

Surface Protection The top coating resists permanent marking from markers and common contaminants; surface stains wipe away without leaving permanent damage to the film.	Self-Healing The TPU formulation recovers from minor surface scratches: with gentle warming, micro-scratches from washing and daily use heal within 1 minute, keeping a clear glossy appearance.
Adhesion A 24-hour peel strength of ~2,200 gf/inch — more than double the minimum specification — ensures secure, long-term bonding without delamination or edge lifting.	Installation Flexibility Elongation at break of ~460% lets the film conform to complex curves, deep recesses and challenging panels including bumpers, mirrors and front ends.

Product Structure

Layer	Component	Function	Approx. Thickness
1 — Top	High-Gloss Protective Coating	Scratch & chemical resistance, gloss retention, self-healing	~15 µm
2 — Middle	TPU Base Film	Impact absorption, elongation, conformability, durability	~160 µm
3 — Bottom	Pressure-Sensitive Adhesive	Secure bonding to paint, repositionable during install	~17 µm
4 — Release	Release Liner (PET)	Protection during storage and handling	~50 µm

Applications

Full Vehicle Wrap	Front End Protection	Door Edges	Side Mirrors	Rocker Panels	Bumpers	Headlights
High-End Custom						

Recommended Use Cases

- Everyday driver paint protection with a premium finish
- High-gloss full-body and partial wraps
- Luxury and performance vehicle protection
- Commercial fleets requiring consistent brand appearance
- Motorcycle fairings and tank protection

Installation Guidelines

Parameter	Recommended Range	Optimal
Ambient Temperature	15 °C – 30 °C	20–25 °C
Relative Humidity	40% – 70%	50–60%
Surface Temperature	15 °C – 35 °C	20–25 °C
Application Fluid	pH-neutral soapy water solution (slip agent)	
Squeegee Type	Soft felt-edge or microfibre-wrapped	

Surface preparation. Clean and decontaminate the paint surface before installation. Remove wax, sealant, oil and embedded contaminants using a clay bar and IPA wipe-down. Ensure the surface is fully dry and dust-free.

Curing period. Allow a minimum of 48 hours before washing the vehicle. Full adhesion develops within 7 days. Avoid high-pressure washing near film edges during the first 2 weeks.

Storage & Handling

Parameter	Requirement
Storage Temperature	10 °C – 30 °C
Relative Humidity	≤ 70%
Shelf Life	24 months from date of manufacture (unopened)
Storage Position	Horizontal, flat, away from direct sunlight
Handling	Clean hands or nitrile gloves required

Quality Assurance

All Bodyguard Gloss BGG152G films undergo quality-control testing in accordance with international standards. Each production batch is tested for gloss retention, adhesion strength, mechanical properties and surface performance before release. All tested parameters meet or exceed specified requirements; the product is certified **PASS / QUALIFIED** for commercial distribution and installation.

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