



PAINT PROTECTION FILM

Super Gloss

Model: BGG152SG

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

2026

TECHNICAL DATASHEET

Bodyguard Super Gloss — Ultra-Gloss Paint Protection Film

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Product Overview

Bodyguard Super Gloss BGG152SG is a premium thermoplastic polyurethane (TPU) based paint protection film engineered for maximum gloss and a mirror-like surface. It combines exceptional optical clarity with rapid self-healing and reliable mechanical performance for luxury, exotic and show-car applications.

Key Advantages

- Ultra-high gloss finish (≥ 140 GU) for a mirror-like appearance
- Advanced self-healing — minor scratches disappear within 1 minute
- Superior surface anti-permeability — resists marker and chemical staining
- Strong adhesion strength: $\sim 1,550$ gf/inch after 24 hours
- High elongation ($\sim 360\%$) for smooth contour wrapping

Physical Properties

Parameter	Test Method	Specification	Unit	Typical Value
Glossiness	QC/T 1171-2022	≥ 140	GU	146
Total Film Thickness	GB/T 6672-2001	$186 \pm 5\%$	μm	~ 190
Surface Anti-Permeability	Internal Method	Faint marks / trace-free	—	PASS
Self-Healing	Internal Method	Self-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	$\sim 1,450$
180° Peel Strength (24 h)	GB/T 2792	$\geq 1,000$	gf/inch	$\sim 1,550$
Coating Elongation at Break	GB/T 1040	≥ 80	%	~ 180
Tensile Strength	GB/T 1040	≥ 15	MPa	~ 25
PPF Elongation at Break	GB/T 1040	≥ 200	%	~ 360
100% Elasticity Modulus	GB/T 1040	≤ 12	MPa	~ 8

Performance Highlights

Surface Protection The specialised top coating provides excellent resistance to permanent marking and common contaminants; the anti-permeability layer lets surface stains be removed without damaging the film.	Self-Healing The advanced TPU formulation enables rapid recovery from minor surface scratches: with ambient warmth or gentle heating, micro-scratches heal within 1 minute, maintaining a flawless glossy appearance.
Adhesion A 24-hour peel strength of ~1,550 gf/inch — above the minimum specification — ensures secure, long-term bonding to automotive paint without delamination or edge lifting.	Installation Flexibility Elongation at break of ~360% allows the film to conform to curves, recesses and challenging body panels including bumpers, mirrors and front ends.

Product Structure

Layer	Component	Function	Approx. Thickness
1 — Top	Ultra-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

- Luxury and exotic vehicle paint protection
- Show-car and concours-level finishes requiring maximum gloss
- Daily drivers with premium aesthetic requirements
- 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 Super Gloss BGG152SG 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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