



PAINT PROTECTION FILM

Matte Satin

Model: BGG152MS

Type:	TPU-based PPF, satin-matte finish
Thickness:	192 μm (7.5 mil)
Finish / Gloss:	Matte · ≤ 15 GU
Standard:	GB/T 9754-2007

2026

TECHNICAL DATASHEET

Bodyguard Matte Satin — Satin-Finish Paint Protection Film

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Product Overview

Bodyguard Matte Satin BGG152MS is a premium thermoplastic polyurethane (TPU) based paint protection film that delivers a smooth satin-matte finish while providing full surface defence. It combines a deep, non-reflective appearance with thermal self-healing and strong mechanical performance, giving factory-matte and custom finishes lasting protection.

Key Advantages

- Uniform satin-matte finish (≤ 15 GU) for a factory-flat, anti-glare appearance
- Thermal self-healing — 100% recovery of minor surface scratches with heat
- Superior surface anti-permeability — resists marker and chemical staining
- High adhesion strength: $\sim 2,100$ gf/inch after 24 hours
- Outstanding elongation ($\sim 440\%$) for complex contour wrapping

Physical Properties

Parameter	Test Method	Specification	Unit	Typical Value
Finish / Colour	Visual Inspection	Matte finish	—	Matte
Glossiness	GB/T 9754-2007	≤ 15	GU	~ 8
Total Film Thickness	GB/T 6672-2001	$192 \pm 5\%$	μm	~ 190
Surface Anti-Permeability	Internal Method	Faint marks / trace-free	—	PASS
Thermal Self-Healing	Internal Method	100% self-healing	—	100%

Mechanical Properties

Parameter	Test Method	Specification	Unit	Typical Value
180° Peel Strength (20 min)	GB/T 2792	≥ 600	gf/inch	$\sim 1,250$
180° Peel Strength (24 h)	GB/T 2792	$\geq 1,000$	gf/inch	$\sim 2,100$
Coating Elongation at Break	GB/T 1040	≥ 60	%	~ 120
Tensile Strength	GB/T 1040	≥ 15	MPa	~ 30
PPF Elongation at Break	GB/T 1040	≥ 200	%	~ 440
100% Elasticity Modulus	GB/T 1040	≤ 10	MPa	~ 8

Performance Highlights

Surface Protection The top coating resists permanent marking from markers and common contaminants; surface stains wipe away without damaging the matte layer.	Self-Healing The TPU formulation recovers from minor surface scratches: with gentle warming, micro-scratches from washing and daily use heal fully, keeping an even matte appearance.
Adhesion A 24-hour peel strength of ~2,100 gf/inch — well above the minimum specification — ensures secure, long-term bonding without delamination or edge lifting.	Installation Flexibility Elongation at break of ~440% 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	Matte Protective Coating	Anti-glare finish, scratch & chemical resistance, 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	Matte Conversions
High-End Custom						

Recommended Use Cases

- Matte and satin factory-finish protection
- Gloss-to-matte conversions requiring an even finish
- Daily drivers with a premium stealth aesthetic
- Commercial fleets requiring consistent matte 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 Matte Satin BGG152MS films undergo quality-control testing in accordance with international standards. Each production batch is tested for gloss level, 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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