



Technical Data Sheet (TDS)

Issued by:

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OEM PROTECTION FILM 150 μ m FLUORINE COATING LAYER

Product Lineup

- OEM Protection Film 150 μ m Fluorine Coating Layer 1,520mm $\times$ 15m
- OEM Protection Film 150 μ m Fluorine Coating Layer 620mm $\times$ 15m

1. Product Concept

This product is a high-performance Paint Protection Film (PPF) developed to protect automotive exterior painted surfaces from physical and chemical damage.

By combining a high-transparency thermoplastic polyurethane (TPU) base material with a self-healing fluoropolymer coating layer, it maintains the appearance and gloss of painted surfaces over an extended period.

With excellent gloss reproduction, scratch resistance, and weather durability, this premium-grade protection film is designed for professional applications.



2. Composition & Key Features

- Type: Multi-layer protection film
(TPU base + fluoropolymer top coat + acrylic adhesive layer)
- Form: Roll
- Recommended Usage Amount: Approx. 1 roll per full vehicle
- Applicable Materials: Automotive painted surfaces, plastic components, metal exterior parts
- Finish: High-transparency, high-gloss finish

Key Features

- Excellent transparency and superior gloss reproduction
- Self-healing capability to reduce minor scratches
- High hydrophobic, oleophobic, and anti-soiling performance
- Outstanding resistance to UV exposure, oxidation, and discoloration
- Enhanced edge stability to suppress yellowing over time

3. Performance & Characteristics

Gloss Retention

The ultra-smooth surface structure enhances paint depth and reflection clarity.

Even aged painted surfaces can achieve a near-new gloss appearance after application.

Scratch Resistance & Self-Healing Performance

The soft-coating structure enables self-healing at room temperature.

Minor wash-induced scratches and swirl marks recover naturally without heat treatment.

Water Repellency

Water contact angle: Approx. 110°

Reduces water adhesion and minimizes water spots and dirt buildup.

Oil Repellency

Oil contact angle: Approx. 65° (n-hexadecane)

Suppresses adhesion of oily contaminants such as tar, pitch, and exhaust residues.

Solvent Resistance



Exhibits strong resistance to solvents commonly used during vehicle maintenance, including gasoline and degreasers.

4. Recommended Application Areas

- Front bumper
- Hood
- Fender
- Door edges / Door mirrors
- Rear bumper
- Door sills / Pillars
- Motorcycle fairings / Fuel tanks

5. Application Method

1. Thoroughly clean and degrease the surface to remove any dirt or oil.
2. Spray an even layer of dedicated installation solution on both the adhesive side of the film and the application surface.
3. Align the position and squeegee out water and air bubbles from the center outward.
4. Use a heat gun if necessary to secure adhesion around edges and curves.
5. Avoid washing or exposing the surface to rain for at least 24 hours after installation.

6. Precautions During Application

- Recommended installation temperature: 15-30° C
- Avoid application under direct sunlight.
- Use only pure water or designated installation solutions.
- Dust or debris contamination may reduce transparency.
- Ensure complete moisture removal and proper adhesion before final inspection.



7. Summary of Product Properties

- Base Material: Thermoplastic Polyurethane (TPU)
- Thickness: 150 μ m
- Surface Layer: Self-healing fluoropolymer
- Adhesive Layer: Transparent acrylic type
- Durability Guideline: Approx. 5 years
- Water Contact Angle: Approx. 110°
- Oil Contact Angle: Approx. 65°
- Solvent Resistance: High
- Gloss Performance: High
- Self-Healing Property: Room-temperature recovery type
- Country of Origin: Japan

8. Remarks

- This product is intended for professional installation.
- Use of non-specified installation solutions may result in adhesion failure.
- Performance values are based on test results and may vary depending on usage environment.
- This document is provided for technical reference only and does not guarantee product performance.

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The information contained in this Technical Data Sheet is based on current technical knowledge at the time of publication.

Specifications and details are subject to change without prior notice.