



Physical Properties

The values displayed are the results of illustrative lab test measures made according to the indicated external norm and shall not be considered as a commitment from **LABOCOSMETICA®**.

Characteristic	Value	Contents
Material	Thermoplastic Polyurethane	Lubrizol TPU+Ashland glue
Top Protection film	Hard coating protective film	
Self-healing	Heat Self-healing	
Hydrophobic, Hydrophilic	Hydrophobic	
Color	Transparent	
Thickness	Protection Film TPU&HC&Adhesive PET Liner	50(μm) 185(μm) 75(μm)
Adhesive	Acrylic, pressure-activated	
Adhesive appearance	Clear	
Adhesion on automotive paint	Initial State: at room temperature	8 (N/25mm)
	Normal State: 24 hours at room temperature	15(N/25mm)
Glossy	≥93°	
Elongation (Hard coating/MD)	110-135(%)	
Peel Adhesion	≤0.35 (N/25mm)	
Scratch repairment	Heat repairable	(0.1mm) Copper brush&drying gun
Water contact angle	≥100°	DL/T864
Acid and Alkali Resistance	Visually undetected damage	Experimental Method
Anti-yellowing	ΔE≤1.5	QUV Method
Application method	Wet only	
Application temperature	15°C-25°C	
Warranty	10 years	Cracking of base material, peeling off of coating and bubbling of rubber layer

LABOCOSMETICA® recommends application at a temperature between **17 °C and 25 °C** to ensure maximum ease of installation and optimal performance.





Scratch Repair Test

Use a **copper wire brush** with a filament thickness of **0.1 mm or less**. After brushing the coated surface **10 times in a circular motion**, heat it with a **heat gun** or bring it to **100 °C**.

Acid and Alkali Resistance Test

Apply a **10% hydrochloric acid solution** and a **0.1 mol/L sodium hydroxide solution** to the surface of the sample. After **24 hours**, the sample surface must show **no visible bubbles, cracks, or coating defects**.

Storage Conditions

- **Temperature:** 15 ~ 25 °C
- **Humidity:** 40 ~ 60%

Notes:

LABOCOSMETICA® ARMORIUS PPF® must be stored in its **original packaging** with **protective materials intact**.

To prevent quality degradation, once the packaging is opened, the **silica protective film** must be promptly removed from any remaining portions; otherwise, **haze or halos** may appear on the surface.

Application Conditions

- **Temperature:** 15 ~ 25 °C
 - **Humidity:** 40 ~ 80%
 - **Surface:** Clean, free of visible dust
 - **Environment:** Away from direct sunlight, in a clean, dry area, and within the original container
- Bring the film to **room temperature** before use.
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Important Notes

1. All **paint protection films (PPF)** must be **cut and plotted in controlled environments** to prevent temperature or static electricity from affecting the product's appearance and performance.
 2. Before application, the **paint surface must be thoroughly cleaned and pretreated** to remove any residue or oil stains that could compromise the final quality.
 3. **Avoid washing the vehicle for at least one week** after application and minimize **prolonged exposure to rainwater**, allowing the adhesive to fully bond and deliver the film's maximum effectiveness.
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Warranty Conditions

1. All LABOCOSMETICA® ARMORIUS PPF® products must be **stored under the specified conditions** and **applied following standard operating procedures**.
2. Warranty-covered items must be **used and maintained** in full compliance with product specifications. For further details, refer to the **identification sheet** and **official declaration** included in the product packaging.

