

TeckWrap® Paint Protection Film with a  
Thermal Remediation Technology

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Technical data sheet & Installation Guide

# **PAINT PROTECTION FILM**

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**GLOSS CLEAR PPF**

**PPF290-E85**

## TECKWRAP PPF290-E85 PAINT PROTECTION FILM

PPF290 is a high-performance aliphatic thermoplastic polyurethane film (TPU) that protects surfaces. Its characteristics of excellent mechanical properties, UV resistance, high transparency, and high gloss prevent vehicles from damage caused by stone chips and scratches.

Please note that this product doesn't have hydrophobic feature.

## PAINT PROTECTION FILM BENEFITS AND FEATURES

- Provides protection from damages caused by stone chips, scratches, salts, insects, splatters and any minor abrasions
- Prevents the paint from fading and prolonging its lifespan
- Brings a significant increase in surface's brightness, turning it into an outstanding finish
- Thermal Remediation Technology. The base material is a curing PU solvent developed with thermal remediation technologies (TRT), showing excellent performance and is highly stain resistant

## INSTALLATION STAGES

- For detailed installation videos of TeckWrap Paint Protection Film visit [www.youtube.com/@teckwrapint](https://www.youtube.com/@teckwrapint)
- Cleaning of a surface with soap liquid - hand cleaning of all organic and nonorganic contaminations - washing off soap liquid
- Cleaning of a surface using abrasive clay for cleaning contaminations
- Degreasing of all surfaces where the film will be bent
- Drying of a surface, checking the surface for impurities, measuring and marking of film on elements
- Cleaning of dust from surfaces using sticky dust wipes
- Applying of liquid on a surface, taking off the liner, watering the adhesive surface of the TPU film, installing of film on the surface
- Forming of film on the surface, rolling of the film using instruments, bending of film, heating the element
- Cleaning of liquid excesses, drying of the wrapped surface, polishing

## INSTALLATION LIQUID

For the application of PPF film, several mixtures can be used. They have different characteristics and effects.

### 1. Water

Doesn't soften adhesive; the adhesive stays active. Water is not recommended when PPF is applied on large surfaces, because there is a risk of complete adhesion.

### 2. Soap mixture

Soap mixture is a mixture of liquid soap and water in the following proportion, 15 parts of soap with 100 parts of water. It's essential that soap's PH is 0 (zero). The soap mixture softens adhesive; the film slides on a surface. PPF is more comfortable to be applied and formed; air and water bubbles can be moved out easily. However, it takes more time to apply PPF using soap mixture.

### 3. Alcohol mixture

Alcohol mixture - a mixture of 95% alcohol and water in the following proportion, 3-4 parts of alcohol and 6-7 parts of water. This liquid activates adhesive and strengthens its adhesion with a surface. When used, there is a risk of early adherence with surface and signs from uneven stretching.

## GENERAL RECOMMENDATIONS

- It's recommended to use hard polyurethane squeegees for larger surfaces and softer Teflon squeegees for bending of vinyl edges. Any tool used for application must be with proper edges and must be kept clean. The edges on the tool must be sharp.
- The cleanliness and quality of water directly affect the quality of installation. The water sprayer should also be kept clean.
- One can damage any film with uneven stretching; PPF is not an exclusion. The film should be stretched evenly and properly. It should be stretched when it's already on the surface. It shouldn't be lifted when stretched. When lifted, the material absorbs heat faster, and there is a risk of uneven stretching. The failure of an application can be seen as broken reflections or lines on PPF.
- It's recommended to use alcohol mixture or clean water for small and simple elements (surface under door handles, protection of back wheel arches, doorways, etc.) and a combination of soap mixture and alcohol mixture for medium size elements of medium difficulty. The alcohol mixture can be used at edges to achieve stronger adhesion.
- The edges of PPF should be heated significantly. The temperature of PPF can be raised to more than 80 Celsius when edges are bent.
- The protective layer on PPF should be pulled off right before installation.
- The surface of PPF should be moistened with liquid during application to prevent the film from scratching.
- It is recommended to install the film in a temperature of 18°C - 24°C.
- The product should be stored in a temperature of 10°C - 20°C

## REMOVAL

A protection film is easy to be removed anytime by picking it up from a corner and pulling at a 30°- 90° angle.

Steam can ease the removal process by softening the material. Doing this can keep the adhesive on the film, and save your energy from a lengthy cleaning process. Alternatively, a heat gun is an excellent tool to soften the adhesive. However, it might lead to the split of the adhesive, which will require more work when cleaning.

## FILM STRUCTURE

**01**

**PROTECTIVE FILM | 50 µm**

Removable protective PET film

**02**

**CLEAR COAT | 8 µm**

Heat sensitive self-healing coating

**03**

**URETHANE | 6.2 mil / 7.2 mil / 9.2 mil**

TPU raw material

**04**

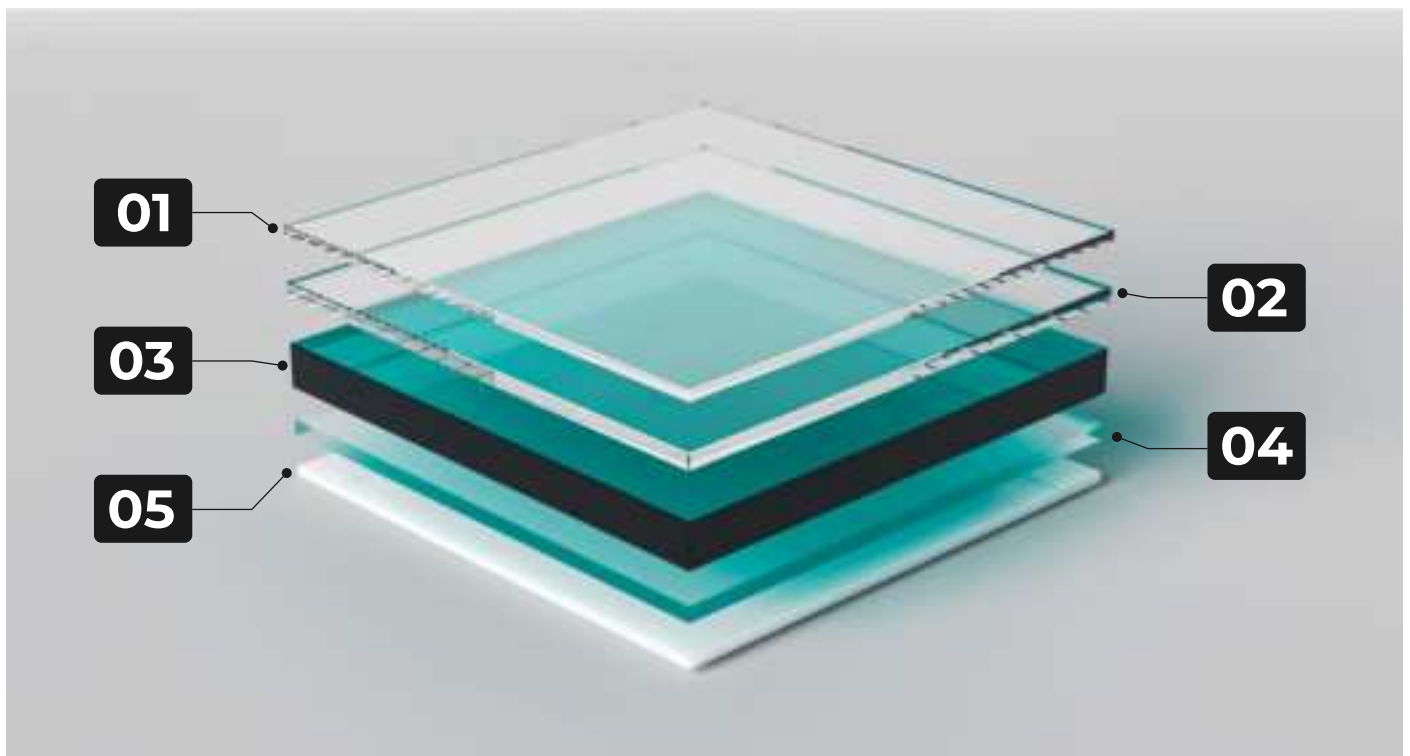
**ADHESIVE LAYER | 28 µm**

Pressure-sensitive polymer made of one-part structural self-curing adhesive and acrylate

**05**

**LINER | 75 µm**

PET release liner



**PERFORMANCE PROPERTIES E85-SERIES**

|                             |                    |
|-----------------------------|--------------------|
| Product thickness (Total)   | 337 um             |
| Application layer thickness | 212 um             |
| Peel Adhesion (Tack)        | ≈ 1200 g/inch      |
| Tensile Strength            | ≥ 30 Mpa           |
| Maximum Temperature         | 100 °C             |
| Coating Elongation at Break | 140 %              |
| Product Elongation at Break | 372 %              |
| UV Resistance               | ≥ 95 %             |
| Light Transmission          | 90 %               |
| Width                       | 1524 mm            |
| Warranty Duration           | 5 years*           |
| Coating Type                | Hydrophilic effect |

*All technical data, statements and recommendations are based on test TeckWrap® believes are reliable. TeckWrap® does not warrant or guarantee the accuracy or completeness of this information.*

**CARE**

To keep the TeckWrap Paint Protection Film in its best for the long term, do NOT wash of wax the wrapped vehicle for a minimum of three days following film installation. Regular washing and waxing is recommended after this period.

**DISCLAIMER**

\* The films mentioned in this bulletin are covered by TeckWrap product warranty and limitation of liability. All TeckWrap products are sold with the understanding that a buyer has independently determined the suitability of products for its purpose. TeckWrap products are warranted to be free of defects in material for the period of shelf life. In case of product defects communicated in mentioned period, TeckWrap will consider and determine the existence of the defect and further decide at its sole discretion, to either replace defective product without charge or compensate it with money in such amount, as TeckWrap deems reasonable. This action is the exclusive right and only obligation of TeckWrap Inc. This warranty does not cover the cases of normal wearing and transportation. In no event will TeckWrap Inc. be liable and responsible for labor, consequential damages, or incidental damages of any kind. Please forward your reclamation letters by email to [crm@teckwrap.com](mailto:crm@teckwrap.com)



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