

K86155 PPF – Aliphatic Polyurethane (160micron)

Product Description

A premium quality top-coated polyurethane film offers a transparent high gloss finish with excellent UV resistance and self-healing surface. Produced with a permanent acrylic adhesive this product is perfect for use on flat or slightly curved surfaces.

The surface has a low surface energy (lotus effect) and a particularly high chemical resistance. The migration of dirt into the film is effectively prevented by the surface coating, which prevents yellowing.

The flexible clear coating offers an outstanding and trouble free application process, together with the outstanding gloss and enhanced exterior durability.

The film protects painted surfaces of the vehicle from minor scuffs, scratches, damage caused by stone chips and environmental elements.

Suitable for use on specific exposed areas including car bonnets, bumpers, or for full vehicle coverage.

Due to the nature of the clear coat, it is unlikely that any printing inks will adhere to the surface.

Recommended Uses

- For the protection of sensitive surfaces against particularly strong mechanical forces in interior and exterior applications
- Specially designed for the protection of car-paints e.g. front and rear bumpers and side skirts against stone chipping, scratches.
- Recommended for bonding to even and slightly curved surfaces.

Products Available

- K86155 High Gloss polyurethane- 160micron

Face Film

160µm Aliphatic Polyurethane with Clear Coat

Adhesive

permanent polyacrylate

Release Liner

75µm matt polyester PET siliconized on one side

Widths

1524mm

Durability

Up to 10 years outdoors
(vertical exposure, mid-Europe)

Shelf Life

2 Years

(out of direct sunlight, between 15°C and 12°C, 30% to 70% relative humidity)

Where the film is supplied without either protective film attached, the shelf life under the same conditions above is reduced to three months

Physical Characteristics

	Test Method	Typical Value
Film Thickness	ISO 4591:1992	150µm polyurethane with 10µm top coat
Elongation	ISO 527-3:2018	300%
Dimensional Stability (48 hours/70°)	FTM14/Aluminium	<0.2mm
Gloss 20°	ASTM D523-14 (2018)	>96
20 minute 180° Peel	FTM1/Stainless Steel	>700 N/m
72 hour 180° Peel	FTM1/Stainless Steel	>1000 N/m
Flammability		Self-extinguishing
Artificial Weathering	Xenon Arc (Din EN ISO 4892)	>1000 hours

Temperature Range

Application Temperature	Minimum +10°C
Service Temperature	-40°C to +100°C

Resistance to various liquids and conditions

Fuel		No Detrimental effect
Resistance to soap and water spotting	FLTM BI 113-01	No Detrimental effect
Acid	FLTM BI 113-02	No Detrimental effect
Water	240 hours, FLTM BI 104-01	No Detrimental effect
Gravel	SAE J400 2.4l of gravel:	Pass

Product Usage Guide

This premium quality extruded aliphatic polyurethane film has been specially developed as a Paint Protection Film (PPF) to reduce corrosion, stone chipping and scratching.

The film protects painted surfaces of the vehicle from minor scuffs, scratches, damage caused by stone chips and environmental elements. Suitable for use on specific exposed areas including car bonnets, bumpers, or for full vehicle coverage.

Produced with an advanced flexible clear coating on the top surface that offers an outstanding and trouble-free application process, together with the outstanding gloss and enhanced exterior durability. KPMF films should not be applied to unsound surfaces or to surfaces which may subsequently crack, peel, outgas or are of low surface energy. It is recommended that any application surface should have an energy level in excess of 40 dyne/cm. (Polyolefins should be in excess of 45 dyne/cm).

Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids etc. may eventually cause deterioration. Actual performance will depend on substrate preparation, exposure conditions and application of marking.

Although we have good control of the production of KPMF products at our multiple locations, as with all other manufacturer's products, customers should be aware that there may be subtle variances between samples, swatches and production materials, so it is advisable to avoid using different batches of material for the same end application.

Application temperature onto clean, dry surface min +10°C

Product Warranty

Kay Premium Marking Films are produced under stringent manufacturing conditions. The information and typical values shown are based upon research believed to be reliable and are provided without guarantee and do not constitute a warranty. The values are not for use in specifications. Ink and paint systems can affect the performance of film and also the adhesive properties, as can application techniques. Users are advised to ensure that performance and reliability are not compromised by determining the suitability of each product prior to its intended use.

Kay Premium Marking Films are produced under careful quality control and are warranted to be fit for the purpose and free from defect in material and workmanship. Any material shown to be defective to our satisfaction at the point of sale shall be replaced free of charge. Kay Premium Marking Films Limited liability to the purchaser shall in no circumstances exceed the cost of the amount of the defective material supplied. Due to the large variety of available paint finishes, it is advisable to fully evaluate small areas particularly after printing prior to complete applications.

The data included on the Data sheet shows typical properties and should not be taken as a guarantee for performance.