



Technical Data Sheet

K85000 Series

Clear Coated REACH Compliant Aliphatic

Product Description

This premium quality extruded aliphatic polyurethane film has been specially developed for use in the automotive and other industries which require a self-adhesive material to reduce corrosion, stone chipping and scratching. The film is transparent and has a specially developed high-tack adhesive system which makes it suitable for use over painted surfaces. The clear coating on the top surface provides outstanding gloss and enhanced exterior durability that protects the painted surfaces of the vehicle from minor scuffs, scratches and 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. Minimum order quantities may apply.

Features

- High gloss finish
- High-tack permanent adhesive
- Excellent outdoor durability

Recommended Uses

- Protection against stone chips, scratches & environmental damage; full vehicle coverage; exposed areas such as car bonnets & bumpers

Face Film

157µm - 270µm Clear-coated Aliphatic Polyurethane

Adhesive

60g/m² clear permanent solvent-based acrylic

Release Liner

75µm PET

Widths

1245mm

Durability

Up to 10 years (vertical exposure, mid Europe)

Shelf Life

2 years (if protective film is attached)

Products Available

- Please refer to our website or swatches to see the full range.

Physical Characteristics		
Properties	Test Method	Typical Value
Film Thickness	ISO 4591:1992	157-270µm
Elongation	ISO 527-3:2018	>250%
Dimensional Stability (48 hours/70°C)	FTM14/Aluminium	<1.0mm
Gloss 60°	ASTM D523-14 (2018)	90
20 minute 180° Peel	FTM1/Stainless Steel	>450N/m
24 hour 180° Peel	FTM1/Stainless Steel	>680N/m
Flammability	-	Self-extinguishing
Artificial Weathering	Xenon Arc	6000 hours
Outdoor Weathering		
Vertical Exposure – Mid Europe	-	10 years
Florida/Arizona	-	1 year
Emmaqua	-	3 years
Temperature Range		
Application Temperature	-	Minimum +10°C
Service Temperature	-	-40°C to +90°C
Resistance to various liquids and conditions		
Fuel	-	No blistering, visible shrinkage or edge lifting
Abrasion	1000 cycles, 500g load, CS-17 wheel	Does not exceed approved sample
Gravel 8.5PT of gravel RT	SAE J400	Does not exceed approved sample
Gravel 8.5PT of gravel -30°C	SAE J400	Does not exceed approved sample

Product Usage Guide

- These premium quality extruded aliphatic polyurethane films have been specially developed for use in the automotive and other industries which require a self-adhesive material to reduce corrosion, stone chipping and scratching. The film has a specially developed high-tack adhesive system, which makes it suitable for use under or over painted surfaces. The clear coating on the surface provides outstanding gloss and enhanced exterior durability that protects the painted surfaces of the vehicle from minor scuffs, scratches, stone chips and damage caused by environmental elements. The materials are conformable and suitable for use on specific exposed areas including car bonnets, bumpers or full vehicle coverage.
 - 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 colour 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 therefore it is advisable to avoid using different batches of material for the same end application.
 - For best results, application should be performed in a clean, dry workshop at an ambient temperature >10°C.
 - Shelf life is 2 years when stored out of direct sunlight, at a temperature of 15-23°C and a relative humidity of 30-70% (with protective film attached). Where the product is supplied without protective film attached, the shelf life under these same conditions is reduced to 3 months.
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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's 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 this datasheet shows typical properties and should not be taken as a guarantee for performance.

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