Product Data Sheet

K82200/K86200 Series Clear Aliphatic Polyurethane

Product Description

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. Polyurethane may also be used for anti-squeak applications. The films are clear and have a specially developed Hi Tack aggressive adhesive system, which makes them suitable for use under or over painted surfaces.
The materials have performed successfully when printed by rotogravure screen and digital methods using solvent based inks, as well as thermal transfer imaging. However, it is advisable to test the process prior to any production run.

Recommended Uses

- Reduce corrosion, stone chipping and scratching
- Anti-squeak applications

Products Available

- K82300 300µm, 60g/m² adhesive
- K82250 250µm, 60g/m² adhesive
- K82200 200µm, 60g/m² adhesive
- K82137 137µm, 50g/m² adhesive
- K86300 300µm, 60g/m² adhesive
- K86250 250µm, 60g/m² adhesive
- K86200 200µm, 60g/m² adhesive
- K86137 137µm, 50g/m² adhesive

Face Film

137µm – 300µm Clear Aliphatic Polyurethane

Adhesive

50g/m² or 60g/m² high-tack permanent solvent-based acrylic

Release Liner

- Kraft
- 75µm anti-static polyester

Widths

1245mm
(K82200 & K86200 are also available in 1397mm)

Durability

Up to 8 years outdoors
(vertical exposure, mid-Europe)

Shelf Life

2 years
(out of direct sunlight, between 15ºC and 23ºC, 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 10 months for roll lengths <50lm this covers both release liners noted above.

ISO 9001 · IATF 16949

Physical Characteristics

	Test Method	Typical Value
Film Thickness	ISO 4591:1992	See above
Elongation	ISO 527-3:2018	>300 %
Dimensional Stability *(48 hours/70°C)*	FTM14/Aluminium	<1.0mm
20 minute 180º Peel	FTM1/Stainless Steel	>438 N/m
24 hour 180º Peel	FTM1/Stainless Steel	>680 N/m
Flammability		Self-extinguishing
Artificial Weathering	Xenon Arc	2000 hours
Outdoor Weathering	Vertical Exposure/Mid Europe Florida/Arizona	6 -8 years 2 years

Temperature Range		
Application Temperature		Minimum +10ºC
Service Temperature		-40ºC to +90ºC
Resistance to various liquids and conditions		
Fuel		No blistering visible shrinkage or edge lifting
Abrasion	1000 Cycles, 500g load, CS-17 Wheel	No blistering visible shrinkage or edge lifting
Gravel	SAE J400 2.4L of Gravel:	
	48 Hrs at 23°C	Does not exceed approved sample
	48 Hrs at 23°C & 4 Hrs at -30°C	Does not exceed approved sample
	4 Hrs at -30°C two cycles GM 950SP-F	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. Polyurethane may also be used for anti-squeak applications. The films are clear and have a specially developed high tack aggressive adhesive system, which makes them suitable for use under or over painted surfaces.

The materials are conformable, being able to be used on smooth, textured and contoured surfaces.
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 therefore 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. This product has been warranted to provide clean removability, under controlled conditions, up to a period of three years from a range of substrates. Clean removability is deemed with less than 30% adhesive residue when using heat and chemical removal methods. Exceptions to the removal warranty are those applied to the following: pre-existing graphics, paint which is not properly bonded to the substrate and custom paint applications. There is no guarantee made for; ease or speed of graphic removal, removal from improperly cured paint, removal from oxidized or chalked substrates, or from horizontally exposed outdoor applications. 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.