



Data sheet

K81000 / K81200 Functional Films

Superior quality, calendered polymeric vinyl films offering durable protection for automotive vulnerable areas and protective slip resistance for floor graphics (K81001).

K81000 Clear Functional

Specially developed for use in the automotive and other industries for kick tread and stone guard applications. Offers protection to areas that are vulnerable to stone chipping or scratching. End users of K81000 Clear include a number of OEMs. The film is suitable for a variety of printing methods.

K81001 StepView

Specially developed for floor graphics applications. It has excellent dimensional durability, exceptional slip resistance and perfect print clarity making it suitable for use over a variety of printed substrates produced by conventionally printed and digital methods. This material has undergone extensive wet and dry slip resistance evaluation by an independent laboratory to "Skid Resistance Test DSIR RRL"

K81200 Black Functional

Specially developed for use in the automotive and other industries for blackout, kick tread and stoneguard applications. Offers protection to areas that are vulnerable to stone chipping or scratching. Particularly suitable for A/B/C Pillars, Window Profiles, Wheel Arches and General Decoration. End users of K82000 Black include a number of OEMs.

Products available

K81030 Clear Functional
K81219 Black Functional

K81001 StepView
K81232 Black Functional

Physical Characteristics

		K81030	K81219 /K81232	K81001
Film Thickness	ISO 4591:1992	300µm	190µm 320µm	300µm
Elongation	ISO 527:1996	>50%	>75%	>75%
Dimensional Stability (150 x 150mm / 48hours / 70°C)	FTM14/Aluminium	< 0.5mm	< 0.5mm	<1.0mm

Adhesive

Clear Permanent Cross-Linking Acrylic solvent based for both wet and dry application.

Adhesive properties

			K81030	K81219 /K81232	K81001
Adhesive Thickness	ISO 4591:1992		0.040g/m ²	0.040g/m ²	0.040g/m ²
Adhesion to stainless steel 20 mins/90°	FINAT Steel	FTM2/Stainless	--	500 N/Metre	500 N/Metre
Adhesion to stainless steel 20 mins/180°	FINAT Steel	FTM1/Stainless	450 N/Metre	600 N/Metre	600 N/Metre
Adhesion to stainless steel 24 Hrs /180°	FINAT Steel	FTM1/Stainless	600 N/Metre	700 N/Metre	700 N/Metre
Static Shear (25 x 25mm)	FINAT Steel	FTM8/Stainless	>16 hours	>16 hours	>16 hours

Release Liner

140gsm Layflat Kraft



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Widths

Available in 1220mm.

Durability

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Flammability

Self-Extinguishing

Artificial Weathering

Atlas Xenon Arc - SAE J2527	>1,000 hrs	>2,000 hrs	>500 hrs
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Weathering

Florida	--	>2 years	--
Arizona	--	>2 years	--

Application Temperature

Clean dry surface	+8°C to 25°C	+8°C to 25°C	+8°C to 25°C
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Service Temperature

-40°C	to	-40°C	to	-40°C	to
+90°C		+90°C		+90°C	

Adhesion Properties to Various Substrates for 24 hours at 23°C / 180° Peel

Aluminium - Untreated	1,215 N/m	1,215 N/m	1,220 N/m
Aluminium - Anodised	1,190 N/m	1,190 N/m	1,195 N/m
Stainless Steel	830 N/m	830 N/m	835 N/m
Chromed Steel	900 N/m	900 N/m	910 N/m
Polyurethane	560 N/m	560 N/m	565 N/m
Glass	830 N/m	830 N/m	835 N/m
Acrylic Sheet	830 N/m	830 N/m	835 N/m
ABS Sheet	760 N/m	760 N/m	765 N/m

NOTE:
This material has undergone extensive wet and dry slip resistance evaluation by an independent laboratory to "Skid Resistance Test DSIR RRL"

Abrasion Resistance 300 Cycles (SAE J400 1 pint of gravel)

No loss of pattern

Resistance to various liquids after application of a 25mm strip of vinyl to stainless steel and conditioned for 24 hours at 23°C prior to immersion. Results examined 1 hour after test.

Humidity	24 hours at 38°C and 100%	--	No Effect	--
Humidity	300 hours	No Effect	--	--
Water (Distilled)	24 hours at 32°C	No Effect	No Effect	--
Sea Water	1 year Mid Tide (BS 5609:1986)	No Effect	No Effect	--
Diesel Fuel	1 hour at 23°C	No Effect	No Effect	--
SAE Motor Oil	24 hours at 23°C	No Effect	No Effect	--
Antifreeze/Water (1:1)	24 hours at 23°C	No Effect	No Effect	--
Detergent Solution	8 hours at 65°C	No Effect	No Effect	--
Hydraulic Oil	24 hours at 23°C	No Effect	No Effect	--
Battery Acid	24 hours at 23°C	No Effect	No Effect	--



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Product Usage guide

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 to avoid possible colour shifts between the batches.

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

Storage

Shelf life (before application) Two years, out of direct sunlight between 15°C and 23°C and 30 to 70 % relative humidity

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.