



Data sheet K50000 / K51000 Series

Product Description

A range of calendered films perfect for applications including vehicle graphics, signage, window graphics, equipment identification and all general sign and decal applications. They are suitable for long term marking applications in exterior and interior environments. The 75 - 80 micron thickness offers excellent cutting and weeding properties and the permanent acrylic adhesive system gives superb adhesion to a variety of substrates.

These superior quality, soft polymeric vinyl films are formulated using the latest advances in PVC and pigment technology to offer improved dimensional stability, conformability and excellent long term durability with a 5 – 7 year life.

The etched glass products were developed to offer a high quality replacement for the more traditional methods of window etching. They present excellent cutting and weeding properties are suitable for use on interior and exterior glass and demonstrate a level of conformability that make them suitable for use on smooth and contoured surfaces.

All K50000 / K51000 Series products are supplied on a kraft liner that provides excellent layflat characteristics.

Products available

K50001 Clear	K50011 White	K50021 Black
K51001 Matt Clear	K51011 Matt White	K51021 Matt Black
K50013 Medium Grey	K50015 Dark Grey	K50553 Ruby
K50554 Sangria Red	K50058 Strawberry	K50551 Dragon Red
K50557 Pepper Red	K50038 Melon	K50335 Turmeric
K50331 Yellow Sunrise	K50032 Primrose	K50441 Orange
K50713 Apple	K50074 Lime	K50071 Kelly
K50075 Mid Green	K50772 Jungle Green	K50067 New Aqua
K50063 Ocean	K50066 Olympic	K50069 Marina
K50061 Vivid Blue	K50064 Ultramarine	K50062 Aztec
K50511 Violet	K50056 Hot Pink	K50087 Camel
K50911 Silver	K50921 Dark Charcoal	K50931 Gold
K51111 Etch Silver	K51112 Textured Etch	K51131 Etch Gold
K51113 Frosted Etch (60"/1.52m)		

Physical Characteristics

	TEST METHOD	TYPICAL VALUE
Film Thickness	ISO 4591:1992	75µm Etch Glass 80 – 100 µm
Elongation	ISO 527:1996	50>%
Dimensional Stability (150 x 150mm/48 hours/70°C)	FTM14/Aluminium	<0.5mm
Gloss 60°	ASTM 523-89	Gloss >85 Matt <20 Etch Glass <30



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Adhesive

Clear semi-permanent Acrylic solvent based adhesive.
White Permanent Acrylic solvent based adhesive.

Adhesive properties

Adhesive Type	Clear	White
Adhesive Thickness	25g/m ²	25g/m ²
Adhesion to painted steel 20 Mins/180°	>650 N/m	>250 N/m
Adhesion to painted steel 24 Hrs/180°	>850 N/m	>650 N/m

Release Liner

Kraft Printed Blue KPMF

Widths

1220mm & 1524mm – see K50000 Series price structure for standard widths of individual products

Durability

Flammability	Self-Extinguishing	Self- Extinguishing
Artificial Weathering	Atlas Xenon Arc	>1000 hours
Etch	Atlas Xenon Arc	>2000 hours

Weathering	Vertical Exposure/Mid Europe	7 Years
Black/White/Clear Colours		5 Years

Durability is based on middle European exposure conditions.

Service Temperature -20°C to +90°C

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
Water (Distilled)	24 hours at 32°C	No Effect
Diesel Fuel	1 hour at 23°C	No Effect
Antifreeze/Water (1:1)	24 hours at 23°C	No Effect
Hydraulic Oil	24 hours at 23°C	No Effect



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.

Products that have the metallic finish are considered to be special products in view of their pigmentation. In order to achieve the metallic effect, special pigments must be used. The pigmentation causes the surface sheen to be generally more uneven. The stability of these products on weathering tests also varies, depending on the pigmentation. However, in general results are much less stable than the other no metallic products in same series. Depending on the type of application (i.e. horizontal or vertical base) the life expectation of the film is lower, particularly in the case of higher atmospheric temperatures. The reduction in stability during weathering tests becomes noticeable as it causes increasing discoloration and the loss of mechanical characteristics. Care should be taken when completing applications using metallic finished products, if the adhesive side of the vinyl is allowed to overlap and make contact with the face of the film this could result in aluminium particles being lifted from the face of the film leading to a slight change to the perceived colour and finish being observed.

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



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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.

