K89000 Series Matt Vinyl Wrapping System (Semi Permanent Adhesive) – VWS I

KPMF 100 micron materials are superior quality soft hybrid PVC films formulated by using the latest advances in PVC and pigment technology to offer exceptional dimensional stability and excellent long-term durability.

They are suitable for long term applications in outdoor and indoor environments, with the 100 micron thickness offering excellent cutting and weeding properties.

The combination of soft vinyl formulation and specific adhesive design offers excellent conformability and adhesion which allows the film to be removed without leaving adhesive transfer.

Typical applications include total vehicle cover, vehicle graphics, signs and decal applications which require exterior exposure of 5 to 7 years. The material is designed to be removable, under controlled conditions, up to a period of three years. White VWS is particularly recommended for all types of digital printing (except water based ink-jet).

CHARACTERISTIC	TEST METHOD	TYPICAL VALUE
Film Thickness	ISO 4591:1992	100 micron
Adhesive Thickness	ISO 4591:1992	18 micron
Adhesive Type		Clear Semi Permanent Acrylic
Release Liner		120gsm Single Sided PE Printed Black
Storage		Two years, out of direct sunlight at 23°C and 50% humidity
Tensile	ISO 527:1996	30.0 N/mm²
Elongation	ISO 527:1996	150%
Adhesion 20 Mins/180°	FINAT FTM1/Painted Steel	600 N/Metre
Adhesion 24 Hrs/180°	FINAT FTM1/Painted Steel	750 N/Metre
Static Shear (25 x 25mm)	FINAT FTM8/Painted Steel	N/A
Dimensional Stability (150 x 150mm/48 hours/70°C)	FTM14/Painted Steel	0.5mm
Gloss at 60°	ASTM 523-89	20
Flammability		Self Extinguishing
Artificial Weathering	QUV	1000 hours
Weathering	Vertical Exposure/Mid Europe	
Black/White		7 years
Colours		5 years
Rivet Testing	KPMF ST 22	N/A
Application Temperature (Dry Method)	Clean, dry surface	+8°C to + 25°C
Service Temperature		-20°C to + 90°C

APPLICATION:
Specific techniques must be used when applying "VWS K89000 Series" to vehicles, specialised training is available. It is the responsibility of the applicator to ensure that the paint system is suitable for the application of "VWS K89000 Series" vinyl and that it is in a fit condition for the application and removal of self-adhesive vinyl. A separate application guide is available upon request.
Kay Premium Marking Films do not accept any liability for paint failures incurred during the application or removal of "VWS K89000 Series" vinyl.

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.

Although we have good control of the colour production at KPMF, it is advisable to avoid using different batches of material for the same end application

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). The above data shows typical properties and should not be taken as a guarantee for performance. Purchasers should determine the suitability of each product prior to its intended use. Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids etc. may eventually cause deterioration. Durability is based on middle European exposure conditions. Actual performance will depend on substrate preparation, exposure conditions and application of marking.

IMPORTANT
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.

WARRANTY
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.