

### **Product Description**

VWS IV (Vinyl Wrapping System) is a range of premium quality cast PVC films specifically developed for vehicle wrapping. These premium cast products are formulated using the latest advances in chemical and pigment technology to offer exceptional dimensional stability and long-term durability.

The combination of soft cast vinyl formulation and specific adhesive design offers excellent conformability into recesses, and adhesion which allows the film to be removed using heat and/or chemicals up to a period of three years from a range of substrates (subject to exceptions covered in the warranty).

#### Features

- Vibrant Matt Colours
- Premium quality cast PVC film construction
- Suitable for long term outdoor environments

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• KPMF's Airelease technology enables bubble free flow out during installation

### Products available

K75501 Matt Iced Silver Titanium	80µm	K75545 Matt Russet Red	100µm
K75502 Matt Iced Orange Titanium	100µm	K75320 Matt Anthracite	80µm
K75505 Matt Iced Blue Titanium	100µm	K75548 Matt Lightning	80µm
K75506 Matt Iced Red Titanium	100µm	K75549 Matt Anodised Bronze	100µm
K75534 Matt Iced Yellow Titanium	100µm	K75550 Matt Welsh Slate	80µm
K75539 Matt Siberian Pearl	100µm	K75551 Matt Magnetic Black	100µm
K75540 Matt Crystalline White	100µm	K75552 Matt Aurora Pearl	100µm
K75542 Matt Viper Green	100µm	K75554 Matt Autumn Fire	100µm
K75543 Matt Java Brown	100µm	K75556 Matt Nero Flare	80µm
K75544 Matt Trenton Blue	100µm	K75561 Matt Elan Blue	80µm
K75545 Matt Russet Red	100µm	K75568 Matt Iced Amethyst Titanium	100µm

Physical Characteristics					
Film Thickness ISO 9	ISO 4591:1992	See above			
Elongation	ISO 527:1996	>140% 100µm >120% 80µm			
Dimensional Stability (150 x 150mm/48 hours/70°C)	FTM14/Aluminium	<0.5 mm			
Gloss 60°	ASTM 523-89	Matt <15			

### Adhesive

Clear semi permanent cross linking acrylic solvent based adhesive

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### Adhesive properties

Adhesive Thickness 18g/m<sup>2</sup> Single side PE Printed black VWS 25g/m<sup>2</sup> Double sided PE structured liner printed green Airelease

Adhesion to stainless steel 20 Mins/180°

>350 N/Metre (Matt)

Adhesion to stainless steel 24 Hrs/180°

>535 N/Metre (Matt)

# **Release Liner**

Single side PE Printed black VWS/Double sided PE structured liner printed green

#### Widths

1524mm

### Durability

	Zone 1		Zone 2		Zone 3	
	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal
Matt	7 years	3 years	5 years	2 years	3 years	1 year

### **Escalated Weathering**

Flammability				Self-Extinguishing
Artificial Weathering	Atlas Xenon Arc		2000 hours	
Weathering - Matt	Horizontal Arizona	Exposure/Florida	and	2 Years - ongoing
Service Temperature -40°C to 90°C	001	- IATE	10	:010 I

Escalated weathering is based on Florida and Arizona exposure conditions

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 (100%) Water (Distilled) Diesel Fuel SAE Motor Oil Antifreeze/Water (1:1)	24 hours at 38°C (100°F) 24 hours at 32°C (90°F) 1 hour at 23°C (73°F) 24 hours at 23°C (73°F) 24 hours at 23°C (73°F) 24 hours at 23°C (73°F)	No effect No effect No effect No effect No effect
Hydraulic Oil Battery Acid	24 hours at 23°C (73°F) 24 hours at 23°C (73°F) 24 hours at 23°C (73°F)	No effect No effect



## Product Usage guide

Typical applications include total vehicle cover, vehicle graphics, signs and decal applications.

Suitable for applications in outdoor and indoor environments, offering excellent cutting and weeding properties.

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.

When using metallic finish films, always keep the application direction of the film consistent with the orientation of the film from the roll when applying to the vehicle.

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 +20°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.

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