



K84220 Series Engineering Grade Reflective Film – 7 Year

These cast retro-reflective films have been specially developed for engineering applications requiring an exterior life of seven years. They have been designed for use on vehicles and road signs using beaded plastic technology. Printing on this grade of reflective is not recommended. They have high head-on and wide-angle reflectivity.

They are available in seven colours: -

K84221	White/Silver	K84225	Blue
K84222	Yellow	K84226	Brown
K84223	Red	K84227	Orange
K84224	Green	K84229	Black

CHARACTERISTIC	TEST METHOD	TYPICAL VALUE
Film Thickness	ISO 4591:1992	0.115mm
Adhesive Thickness	ISO 4591:1992	0.040mm
Adhesive Type		Solvent Acrylic
Release Liner		140gsm White Single Sided PE
Storage		Two years out of direct sunlight at 23°C and 50% humidity
Tensile	ISO 527:1996	> 20N/mm ²
Elongation	ISO 527:1996	>5%
Adhesion 20mins/90°	FINAT FTM2/Stainless Steel	Film Breaks
Adhesion 20 mins/180°	FINAT FTM1/Stainless Steel	Film Breaks
Adhesion 24 hrs/90°	FINAT FTM1/Stainless Steel	Film Breaks
Adhesion 24 hrs/180°	FINAT FTM1/Stainless Steel	Film Breaks
Static Shear (25 x 25mm)	FINAT FTM8/Stainless Steel	N/A
Dimensional Stability (150 x 150mm/48 hrs/70°C)		< 0.5mm
Gloss 60°	ASTM 523 – 89	>70%
Flammability		Self Extinguishing
Artificial Weathering	QUV	> 750 hours
Weathering (All Colours)	Vertical Exposure/Mid Europe	7 Years
Flexibility	Mandrel Wrap/3mm diameter	No cracking or delamination
Impact Resistance	2kg/15mm tip/2.5 metre high	No cracking or delamination
Reflectivity	ASTM D-4956	TYPE I
Application Temperature	KPMF ST22	+8°C to 25°C
Service Temperature	Clean, dry surface	-40°C to +105°C

Resistance to Various Liquids

Water	24 hours at 32°C	No effect
Kerosene	10 minutes at 23°C	No effect
Mineral Spirit	10 minutes at 23°C	No effect
VM & P Naptha	10 minutes at 23°C	No effect
SAE Motor Oil	10 minutes at 23°C	No effect
Diesel Fuel	10 minutes at 23°C	No effect
Unleaded Gasoline	10 minutes at 23°C	No effect
Turpentine	10 minutes at 23°C	No effect
Toluene	1 minute at 23°C	No effect
Xylene	1 minute at 23°C	No effect
Methanol	1 minute at 23°C	No effect

Although we have good control of 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.