# K50000 Series Gloss Calendered Vinyl/K51000 Matt Calendered Vinyl

These superior quality, soft polymeric vinyl films are formulated using the latest advances in PVC and pigment technology to offer improved dimensional stability and excellent long term durability.

The wide range of light-fast colours are suitable for long term marking applications in exterior and interior environments. The 75 micron thickness offers excellent cutting and weeding properties, conformability and adhesion to a variety of substrates.

Typical applications include vehicle graphics, signs, window graphics, equipment identification and all general sign and decal applications which require an outdoor exposure of 5 - 7 years.

| CHARACTERISTIC | TEST METHOD | TYPICAL VALUE |
|---|---|---|
| Film Thickness | ISO 4591:1992 | 0.075mm |
| Adhesive Thickness | ISO 4591:1992 | 0.025mm |
| Adhesive Type | | Clear Permanent Cross-Linking Acrylic |
| Release Liner | | 140gsm Kraft Printed Blue |
| Storage | | Two years, out of direct sunlight at 23°C and 50% humidity |
| Tensile | ISO 527:1996 | >20.0 N/mm² |
| Elongation | ISO 527:1996 | >50% |
| Adhesion 20 Mins/90° | FINAT FTM2/Stainless Steel | 520 N/Metre |
| Adhesion 20 Mins/180° | FINAT FTM1/Stainless Steel | 650 N/Metre |
| Adhesion 24 Hrs/180° | FINAT FTM1/Stainless Steel | 850 N/Metre |
| Static Shear (25 x 25mm) | FINAT FTM8/Stainless Steel | >16 hours |
| Dimensional Stability (150 x 150mm/48 hours/70°C) | FTM14/Aluminium | <0.5mm |
| Gloss 60° | ASTM 523-89 | >70% |
| Flammability | | Self Extinguishing |
| Artificial Weathering | QUV | >1000 hours |
| Weathering | Vertical Exposure/Mid Europe | |
| Black/White/Clear | | 7 years |
| Colours | | 5 years |
| Metallics | | 5 years |
| Rivet Testing | KPMF ST 22 | N/A |
| Application Temperature | Clean, dry surface | +8°C to 25°C |
| Service Temperature | | -40°C to + 105°C |
| **Adhesion Properties to Various Substrates for 24 hours at 23°C/180° Peel** | | |
| Aluminium - Untreated | | 1,100 N/Metre |
| Aluminium - Anodised | | 1,210 N/Metre |
| Stainless Steel | | 850 N/Metre |
| Chromed Steel | | 925 N/Metre |
| Polyurethane | | 580 N/Metre |
| Glass | | 850 N/Metre |
| Acrylic Sheet | | 850 N/Metre |
| ABS Sheet | | 780 N/Metre |
| **Resistance to various liquids after application and conditioned for 24 hours at 23°C. 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 |
| Sea Water | 1 year Mid Tide (BS 5609:1986) | No Effect |
| Reference Fuel | 1 hour at 23°C | Very Slight Film Softening |
| Diesel Fuel | 1 hour at 23°C | No Effect |
| SAE Motor Oil | 24 hours at 23°C | No Effect |
| Antifreeze/Water (1:1) | 24 hours at 23°C | No Effect |
| Detergent Solution | 8 hours at 65°C | No Effect |
| Hydraulic Oil | 24 hours at 23°C | No Effect |
| Battery Acid | 24 hours at 23°C | No Effect |

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.