



K82000 Aliphatic Polyurethane

TECHNICAL & PERFORMANCE INFORMATION

K82000

K82000 Series Clear Polyurethane - Aliphatic

These premium quality extruded aliphatic polyurethane films have been specially developed for use in the automotive and other industries which require a self adhesive material to reduce corrosion, stone chipping and scratching. Polyurethane may also be used for anti-squeak applications. The films are clear and have a specially developed Hi Tack aggressive adhesive system, which makes them suitable for use under or over painted surfaces.

The materials have performed successfully when printed by rotogravure screen and digital methods using solvent based inks, as well as thermal transfer imaging. However it is advisable to test the process prior to any production run.

These films are available as:

| | | | | | |
|--------|-------------------------------------|--------|-----------------------------------|--------|-----------------------------------|
| K82999 | 1,000 micron with 60gsm of adhesive | K82350 | 350 micron with 60gsm of adhesive | K82100 | 100 micron with 40gsm of adhesive |
| K82850 | 850 micron with 60gsm of adhesive | K82300 | 300 micron with 60gsm of adhesive | K82075 | 75 micron with 40gsm of adhesive |
| K82800 | 800 micron with 60gsm of adhesive | K82250 | 250 micron with 60gsm of adhesive | K82050 | 50 micron with 40gsm of adhesive |
| K82750 | 750 micron with 60gsm of adhesive | K82200 | 200 micron with 60gsm of adhesive | K82038 | 38 micron with 30gsm of adhesive |
| K82550 | 550 micron with 60gsm of adhesive | K82150 | 150 micron with 50gsm of adhesive | K82035 | 35 micron with 30gsm of adhesive |
| K82500 | 500 micron with 60gsm of adhesive | K82137 | 137 micron with 50gsm of adhesive | K82026 | 26 micron with 30gsm of adhesive |
| K82400 | 400 micron with 60gsm of adhesive | K82125 | 125 micron with 40gsm of adhesive | | |

All materials are available with a paper or antistatic polyester liner, with or without PE or PET protective film and are often subject to minimum order quantities.

CHARACTERISTIC

Film Thickness
 Adhesive Thickness
 Adhesive Type
 Release Liner
 Storage
 Tensile (K82200)
 Elongation (K82200)
 Shore Hardness A
 Static Shear
 Adhesion 20 Mins/180° 23°C
 Adhesion 24 Hrs/180° 23°C
 Dimensional Stability
 (150 x 150mm/48 hours) 70°C)
 Gravel Resistance (K82200)
 Abrasion Resistance
 Fuel Resistance
 Environmental Resistance

TEST METHOD

ISO 4591:1992
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 ISO 527:1996
 ISO 527:1996
 FINAT FTM8/Stainless Steel
 FINAT FTM1/Stainless Steel
 FINAT FTM1/Stainless Steel
 FINAT FTM14/Aluminium
 SAE J400 2.4L of gravel
 1. 48 Hrs at 23°C
 2. 48 Hrs at 23°C & 4 Hrs at -30°C
 3. 4 Hrs at -30°C two cycles GM 950SP-F
 1000 Cycles, 500g load, CS-17 Wheel

TYPICAL VALUE K82200

See above
 See above
 Hi Tack Self Cross Linking Acrylic
 140gsm Stayflat Kraft/75µ antistatic matt backed polyester
 Two years, out of direct sunlight at 73° F and 50% humidity. Where the film is supplied without either protective film attached, the shelf life under the same conditions above is reduced to three months.
 > 30 N/mm²
 > 250%
 90-95 units
 > 2 hours
 430 N/m Minimum
 710 N/m Minimum
 < 1.0mm
 Shall not exceed approved test sample.
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 Shall not exceed approved test sample.
 No wear through to substrate.
 No blistering, visible shrinkage or edge lifting
 No blistering visible shrinkage or edge lifting.
 No discoloration (DE measured on white standard in CMC 2) greater than: -
 1. 2500 KJ WOM 1.5 ΔE Maximum
 2. 168 Hrs @ 70°C 2.5 ΔE Maximum
 3. 168 Hrs @ 120°C 18.0 ΔE Maximum
 4. 168 Hrs Humidity 2.0 ΔE Maximum
 6-8 Years

Weathering

Vertical Exposure/Mid Europe

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.

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TECHNICAL DATA SHEET
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Approved:

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