



# K82000 Aliphatic Polyurethane

## TECHNICAL & PERFORMANCE INFORMATION

# K82000

### K82000 Series Clear Polyurethane - Aliphatic without Adhesive

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 materials, which are clear, 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	K82350	350 micron	K82100	100 micron
K82850	850 micron	K82300	300 micron	K82075	75 micron
K82800	800 micron	K82250	250 micron	K82050	50 micron
K82750	750 micron	K82200	200 micron	K82038	38 micron
K82550	550 micron	K82150	150 micron	K82035	35 micron
K82500	500 micron	K82125	125 micron	K82026	26 micron
K82400	400 micron	K82137	137 micron		

All materials can be subject to minimum order quantities.

#### CHARACTERISTIC

#### TEST METHOD

#### TYPICAL VALUE K82200

Film Thickness	ISO 4591:1992	See above
Tensile (K82200)	ISO 527:1996	> 30 N/mm <sup>2</sup>
Elongation (K82200)	ISO 527:1996	> 250%
Gravel Resistance (K82200)	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	Shall not exceed approved test sample. Shall not exceed approved test sample. Shall not exceed approved test sample.
Abrasion Resistance	1000 Cycles, 500g load, CS-17 Wheel	No wear through to substrate.
Fuel Resistance		No blistering, visible shrinkage.
Environmental Resistance		No blistering visible shrinkage. 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

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**  
**K82000 Series Clear Polyurethane – Aliphatic without Adhesive**  
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Approved:

Page  
1 of 1