

B ALPOLLEN® 1000 - ALPOLLEN® 500 - ALPOLLEN® 2000

Polyethylene with a molecular weight of +/- 3,5.10⁶ with 10,5.10⁶ PE UMWH 1000 is more rigid than the high molecular weight polyethylene (PE 500) and it is therefore more suitable for mechanical applications. The friction coefficient is low and machinability is excellent.

FEATURES

Chemical: high chemical resistance typical of the polyolefins
 Shock resistance, good even at low temperature
 High abrasion resistance
 Low friction coefficient
 Low specific gravity
 Easy machinability
 colour: natural

Identity:

Density	: 0,96 g/cm ³	Prolonged Factor	: 0,005 (10 ³ .2HZ)
Melt Temperature	: 130 °C	Bending Strength	: 300 kg / cm ²
Hardness	: m 53 Rockwell	Surface Resistance	: Normal
Working Temperature	: 80°C	Tension Strength	: 260 kg / cm ²
Breaking Prolonged	: %800	Dielectric Strength	: 2,4 (10 ³ .2HZ)
Thermal Prolonged	: 55 - 80°C	Behaviour in Manufacturing	: good
Water Absorption	: %0,1	Light Resistance	: weak
Thermal Expanding	: 2.10 ⁻⁴	Food Available	: well
Friction Coefficient	: 0,20	Acid Resistance	: good
Pressing Strength	: 300 kg/cm ²	Base Resistance	: good

WEAK POINT

Compared to the engineering plastics it has lower thermal and mechanical properties : tensile stress, flexural and compressive strength, etc. Compared to high molecular weight PE, it is more rigid and its resistance to continuous shock is therefore lower

APPLICATION

Food contact: physiologically inert, it is approved for food contact by the most important standards. Thanks to this feature, it is widely used for components in food machinery, pumps for liquid food etc.

Chemical: thanks to the high resistance to acids and alkali it is used to produce components ifor the chemical industry.

Electrical: very good dielectric properties, weatherproof.

Mechanical: the low friction coefficient and its non hygroscopicity make it suitable for use as a bearing or for mechanical parts with low loads, even when operating in water.

The graph shows that the higher the molecular weight is, the higher the shock resistance, but that tensile stress decreases.

Red : tensile stress

Grey: shock resistance

ALPOLLEN® 2000

Modified for the specific applications of our customers.

- With antistatic finish and additional lubricant for the conveyor industry.
- With added antioxidants, for example, which can be used at high temperatures.
- With additional flame retardant properties for use in rail vehicle, machinery and mining construction.
- With enhanced antibacterial effects.

Ultra-high molecular weight low pressure polyethylene with a molecular weight 3.500.000 g/mol plus additives for the improvement of specific material properties.

ALPOLLEN® 500

Polyethylene with a molecular weight of +/- 500.000 with semi-finished products made of ALPOLLEN® 500 we offer you a material which, thanks to its characteristics, quality and price, is the first choice for many applications. Particularly in the food industry and in sports centre construction, ALPOLLEN® 500 does an excellent job with its impact strength and insulating properties — and that at competitive costs.

ALPOLLEN® 500 complies in full with all applicable regulations for contact with food. In addition to its use as a cutting board, as lining or as impact protection, it is also useful in other applications, for example in machine construction.

FEATURES

Shock resistance, good even at low temperatures
 High chemical resistance typical of the polyolefins
 High abrasion resistance
 Low friction coefficient
 Low specific gravity
 Easy machinability
 colour: natural

WEAK POINT

Compared to the engineering plastics it has lower thermal and mechanical properties: tensile stress, flexural and compressive strength, etc. Compared to low molecular weight PE, it is less rigid.

APPLICATION

Food contact : physiologically inert, it is approved for food contact by the most important standards. Thanks to this feature, it is widely used for components in food machinery, pumps for liquid food etc.

Chemical: thanks to the high resistance to acids and alkali it is used for components in the chemical industry

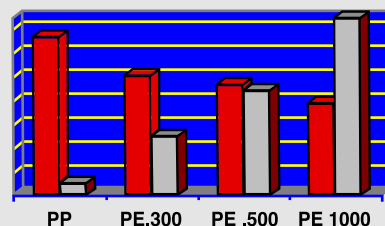
Electrical : very good dielectric properties, weatherproof

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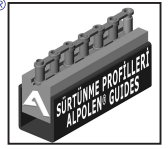
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Alpolen® 1000 and 500 for more technical details and application please you can visit

www.alhan-cagri.com



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Kimyasal Dirençler Chemical Resistance Temperatures up to 65°C 65°C'ye Kadar	Polyamid Polyamide	Çelik Steel	Paslanmaz Çelik Stainless Steel AISI 304	Paslanmaz Çelik Stainless Steel AISI 430	Düşük Sürtümlü Asetal LF Acetal (POM)	ALPOLEN® 1000 UHMW	Polipropilen Polypropylene (PP)
Sodyum Hidroksid Sodium hydroxide (max.25%)	+	-	+	+	-	+	+
Sodyum Hipoklorid Sodium hypochlorite	+	-	-	-	-	+	+
Meyve Suyu Fruit Juices	+	-	+	0	+	+	+
Sebze Suyu Juices vegetable	+	0	+	+	+	+	+
Süt Milk	+	+	+	+	+	+	+
Hardal Mustard	0	+	+	+	+	0	+
Parafin Paraffin	+	+	+	+	+	+	0
Hidrojen Peroksit Hydrogen peroxide	-	-	+	0	-	0	+
Karbon Tetraklorid Carbon tetrachloride	+	0	0	0	+	0	-
Toluene	-	-	-	-	+	0	+
Turpentin Turpentine	-	+	+	+	-	0	+
Sirke Vinegar	+	-	0	-	+	+	+
Şarap Wine	+	+	+	+	+	+	+
Viski Whisky	+	+	+	+	+	+	+
Lodine	-	0	0	0	0	0	0
Xilol	-	-	-	-	-	-	-

+ = İyi / Good

0=Orta / Average

- =Yetersiz / Unsatisfactory

Yukarıda belirtilen değerler firma tecrübesine dayalı olup garanti niteliği taşımamaktadır.

Malzemeler ve ürünler çalışma şartları doğrultusunda test edilerek uygun koşullar saptanmalıdır.

Ürünlerimizin Mekanik Analizleri Pro-Engineer Wildfire Programında yapılmaktadır.

This information may be considered as a basis for recommendation, but not as a guarantee.

Materials and products should be tested under exact intended service conditions

to determine their suitability for a particular purpose.

Mechanical Analysis of products on  Pro-Engineer Wildfire Software.