

VAPLATEC 1000

Vaplatec 1000 is an ultra-high molecular weight polyethylene. It is the polyolefin with the best mechanical properties: very high impact resistance, excellent wear resistance, very low coefficient of friction, very good chemical resistance and very low water absorption.

PROPERTY	METHOD	VALUE
Molecular weight (g/mol)		$> 3.5 \times 10^6$
Density (g/cm ³)	ISO 1183	0.94
Shore hardness D	UNE EN ISO 868	62
Water absorption (%)	UNE EN ISO 62	< 0.1
Tensile stress* (N/mm ²)	UNE EN ISO 527	> 26
Ultimate tensile strength* (N/mm ²)	UNE EN ISO 527	> 26
Elongation at break* (%)	UNE EN ISO 527	> 350
Flexural stress* (N/mm ²)	UNE EN ISO 178	> 17
Modulus of elasticity (N/mm ²)	UNE EN ISO 178	> 645
Impact strength Charpy* (KJ/m ²)	UNE EN ISO 179-1	110
Thermal coefficient of linear expansion by °C (α)	UNE 53126	1.21×10^{-4}
Wear resistance	Intern method based in Sand Slurry Test	117
Static coefficient of friction* (μ)	UNE EN ISO 8259	< 0.2
Dynamic coefficient of friction* (μ)	UNE EN ISO 8259	< 0.15
Surface electric resistivity ($\Omega \cdot \text{cm}$)	UNE 21303	$> 10^{14}$
Sheet size	DIN 16972	4110 x 2055 mm 4110 x 1025 mm 4050 x 1230 mm 2020 x 1020 mm

*Properties measured on sheets with 5 mm of thickness

All the material tests have been made by an authorize test laboratory (Norma UNE EN ISO /IEC 17025:2000) by ENAC, Entidad Nacional de Acreditación.

All the information is based on our technical knowledge and current experience. It doesn't exempt to the customers of their own quality controls.