

TECAFINE PE1000 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PE-UHMW (Polyethylene - ultra highmolecular weight)

Colour

white opaque

Density

0.93 g/cm³

Main features

- ultra high molecular weight
- very good abrasion resistance
- excellent impact strength
- very good slide and wear properties

Target Industries

- construction industry
- food engineering
- mining industry

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Modulus of elasticity (tensile test)		700	MPa	DIN EN ISO 527-1	(1) n.b. = not broken
Tensile strength at yield		19	MPa	DIN EN ISO 527-1	
Elongation at yield		11	%	DIN EN ISO 527-1	
Impact strength (Charpy)		n.b.	kJ/m ²	DIN EN ISO 179-1	1)
Shore hardness	Shore D	60		DIN EN ISO 868	
Ball indentation hardness		30	MPa	ISO 2039-1	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Service temperature		-260 - +80	°C	-	1) (1) Found in public sources. Individual testing regarding application conditions is mandatory.
Thermal expansion (CLTE)		18	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity		> 10 ¹⁴	Ω	DIN IEC 60093	
Dielectric strength		44	kV/mm	ISO 60243-1	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Water absorption		< 0,01	%	DIN EN ISO 62	
Flammability	corresponding to	B2		DIN 4102	1) (1) Corresponding means no listing. The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.