

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

Mechanical properties	parameter	value	unit	norm	comment
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 (tensile test)		11	%	DIN EN ISO 527-1	
Impact strength (Charpy)		n.b.	kJ/m ²	DIN EN ISO 179-1	1)
Ball indentation hardness		30	MPa	ISO 2039-1	
Shore hardness	Shore D	60		DIN EN ISO 868	
Thermal properties	parameter	value	unit	norm	comment
Service temperature		-260 - +80	°C	-	1)
Thermal expansion (CLTE)		18	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Electrical properties	parameter	value	unit	norm	comment
surface resistivity		> 10 ¹⁴	Ω	-	
Dielectric strength		44	kV/mm	ISO 60243-1	
Other properties	parameter	value	unit	norm	comment
Water absorption		< 0,01	%	DIN EN ISO 62	
Flammability	corresponding to	B2		DIN 4102	1)

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