TECAFINE PE100 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation
PE 100 (High Density Polyethylene)

Colour
white opaque

Density
0.96 g/cm^3

Main features
- excellent chemical resistance
- heat stabilized
- good machinability
- high stiffness
- high toughness

Target Industries
- agricultural machinery
- automotive industry
- chemical technology
- pharmaceutical industry

Mechanical properties	parameter	value	unit	norm		comment
Modulus of elasticity (tensile test)		1100	MPa	DIN EN ISO 527-1		(1) n.b. = not broken
Tensile strength at yield		23	MPa	DIN EN ISO 527-1		
Elongation at yield (tensile test)		9	%	DIN EN ISO 527-1		
Impact strength (Charpy)		n.b.	kJ/m^2	DIN EN ISO 179-1	1)	
Ball indentation hardness		40	MPa	-		
Shore hardness	Shore D	64		DIN EN ISO 868		

Thermal properties	parameter	value	unit	norm		comment
Service temperature		-50 - +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		

Electrical properties	parameter	value	unit	norm		comment
surface resistivity		≥ 10^{14}	Ω	-		
Dielectric strength		47	kV/mm	ISO 60243-1		

Other properties	parameter	value	unit	norm		comment
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.

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