

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

Chemical Designation

PE 100 (High Density Polyethylene)

Colour

black opaque

Density

0.96 g/cm³

Main features

- average molecular weight 300.000 g/mol
- excellent chemical resistance
- heat stabilized
- good machinability
- high stiffness
- high toughness

Target Industries

- agricultural machinery
- automotive industry
- chemical technology
- pharmaceutical 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)		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	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Service temperature		-50 - +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.
<i>Electrical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
surface resistivity		≥ 10 ¹⁴	Ω	-	
Dielectric strength		47	kV/mm	ISO 60243-1	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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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