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

Chemical Designation
PE-UHMW (Polyethylene - ultra highmolecular weight)

Colour
blue opaque

Density
0.93 g/cm^3

Main features
- ultra high molecular weight
- very good abrasion resistance
- excellent impact strength
- average molecular weight 4.500.000 g/mol
- 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)	(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		44	kV/mm	ISO 60243-1	

Other properties	parameter	value	unit	norm		comment
Water absorption		< 0,01	%	DIN EN ISO 62		(1) Corresponding means no listing. The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Flammability	corresponding to	B2		DIN 4102	1)	

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