

HDPE Technical Data Sheet

Technical Data	Method of Verification	Unit	HDPE
I .Physical Properties			
Density	ISO 1183	g/cm3	0.95
Water absorption	ISO 62	%	0
II .Mechanical Properties			
Tensile strength at yield	ISO 527-2	MPa	27
Tensile strength at break	ISO 527-2	Mpa	35
Elongation at break	ISO 527-2	%	≧ 700
Modulus of elasticity after tensile test	ISO 527-2	MPa	1,000
Modulus of elasticity after flexural test	ISO 178	MPa	1,000
Hardness-Rockwell	ISO 2039-2		-
Hardness - Shore D	DIN 53505		64
Charpy impact strength at 23℃	ISO 179	kJ/m2	N. B.
Friction coefficient	DIN 53375		0.3
III .Thermal Properties			
Heat deflection temperature - HDT/A	ISO 75-2	℃	49
Max. service temperature - Short term		℃	90
Max. service temperature - Long term		℃	90
Thermal conductivity at 23 ℃	DIN 11359	W/(K*m)	0.42
Coefficient of linear thermal expansion	ISO 11359	10 ⁻⁴ K ⁻¹	1.5
IV .Electrical Properties			
Dielectric constant at 1 MHz	IEC 60250	10 ⁶ Hz	2.35
Dielectric loss factor at 1 MHz	IEC 60250	10 ⁶ Hz	3.1
Volume resistively	IEC 60093	Ohm (Ω) * cm	>10 ¹⁶
Surface resistively	IEC 60093	Ohm (Ω)	>10 ¹⁵
Dielectric strength	IEC 60243-1	kV/mm	17
V .Miscellaneous Data			
Flammability	UL 94	Class	HB
NOTE: 1 g/cm3 = 1,000 kg/m3, 1 Mpa = 1 N/mm2, 1kV/mm = 1 MV/m			

Statement:

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Energetic will not provide any legally binding guarantee of certain properties, or any suitability.