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Polyethylene

PE1000 - HDPE - Polythene

Industry-leading thermoplastic polymer with outstanding chemical resistance, electrical insulation and tensile strength.

Material properties

Density	ISO 1183	**0,94**	g/cm³
Water absorption at saturation	ISO 62	**0,01**	%
Hygroscopicity	ISO 62	**0**	%
Tensile strength	ISO 527	**18**	MPa
Elongation at break	ISO 527	**> 50**	%
Yield strength	ISO 527	**18**	MPa
Elastic modulus	ISO 527	**750**	MPa
Flexural strength	ISO EN 178	**17**	MPa
Resilience	ISO 179	**No break**	kJ/m²
Hardness	ISO 868	**61 D**	Shore
HDT 0.45 MPa	ISO 75	**70**	°C
HDT 1.8 MPa	ISO 75	**42**	°C
Vicat softening temperature	ISO 306	**80**	°C
Melting temperature	ISO 11357	**130-135**	°C
Flammability	UL94	**HB**	

Maximum dimensions
500x500x90 mm (19.7x19.7x3.5 in)

Tolerances
ISO 2768-1 medium (m) class

Applications
Used in numerous industries due to its excellent tribological properties and impact resistance

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Technical datasheet v2.1 (last review 12/02/2024)

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Thermal conductivity (20°C)	DIN 52612	**0,4**	W/mK
Volumic electrical resistivity	IEC 60093	**> 10^14**	Ω*m

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