

Multiplast HMPE1000

Multiplast HMPE1000 is a high-modulus polyethylene which is also known as:

- UHMWPE (Ultra-high-molecular-weight polyethylene)
- UHMW (Ultra-High-molecular-weight)
- HPPE (High-performance polyethylene)

Multiplast HMPE1000 has a:

- Low coefficient of friction
- Excellent impact resistance
- High wear resistance
- High chemical resistance
- High pressure resistance
- FDA-approved
- Zero moisture absorption

Properties	Units	
Tensile strength	MPa	27
Ultimate tensile strength	MPa	40,5
Elongation at break	%	400
Modulus of elasticity	MPa	700
Notched impact strength (Charpy)	kJ/m ²	> 80 - 140
Ball indentation hardness 30 sec. value	MPa	38
Shore hardness D	-	64 - 67
Abrasion (Sand-Slurry-Test)	%	100
Coefficient of friction	μ	0,1 – 0,2
Dimensional stability under heat	°C	47
Vicat softening temperature	°C	79
Crystalline melting range	°C	130 – 135
Thermal conductivity	W /(m * K)	0,42
Specific heat at 23°C	kJ /(K * Kg)	1,8
Coefficient of linear expansion at 23°C	10 ⁻⁵ K ⁻¹	20
Fire behavior	UL 94	HB
Application temperature (min.)	°C	-200
Application temperature (constant)	°C	+80

Moisture absorption	%	< 0,01
Properties	Units	
Specific volume resistance	$\Omega \times \text{cm}$	10^{15}
Surface resistance	Ω	10^{14}
Dielectric strength	KV / mm	45
Density	g/cm ³	0,96
Molecular weight	Millions	> 4,4
Color	-	Standard colors are: Natural, Black and Green

Availability:

Sheet: Size: 1000 x 2000 mm
 Thickness: 1 – 8 mm

 Size: 1010 x 2020 mm
 Thickness: 10 – 200 mm

 Size: 1010 x 3030 mm
 Thickness: 10 – 200 mm

 Size: 1220 x 2020 mm
 Thickness: 10 - 200 mm

 Size: 1220 x 2520 mm
 Thickness: 10 - 200 mm

 Size: 1220 x 3050 mm
 Thickness: 10 - 200 mm

Rod: Length: 1000 mm
 Diameter: 20 – 250 mm

 Length: 2000 mm
 Diameter: 20 – 200 mm

Cut pieces: On request

Parts: Finished products according to drawing