

UHMWPE Plastic DATA SHEET

Mechanical Property

Property	Unit	UHMWPE	UHMWPE 500	UHMWPE 1000
Density	g/m ³	0.94	0.93	0.93
Long Term Working Temperature	°C	90		
Yield Stretch Strength	Mpa	17	17	20
Beaking Stretch Strength	Mpa	27		
Beaking Stretch Rate	%	500	50	50
Bending Modulus	Mpa	680	680	750
Hardness	Mpa	61	61	65
Impact Strength	KJ/m ²	130	150	300

Thermal Property

Melting Point	°C	130.00	130.00	130.00
Heat Deflection Temperature	°C	40.00	42.00	50.00
Max Operating Temperature (Short)	°C			
Thermal Conductivity	W(K-M)	0.41	0.41	0.41
Coefficient Of Linear Expansion	10-5-1/K			

Electrical Features

Dielectric Constant	—	—	—	—
Dielectric Loss Constant	—	—	—	—
Volume Resistance	Ω.cm	10 ¹²	10 ¹²	10 ¹²
Surface Resistance	Ω	10 ¹²	10 ¹²	10 ¹²
Dielectric Streng	KV-mm	2.4	45.00	45.00

Chemical Features

Balance Water Absorption	%	0.1	0.10	0.10
Acid Resistance		+	+	+
Alkali Resistance		+	+	+
Acid and Alkali Water Resistance		+	+	+
Chlorine with acid and Alkali Resistance		+	+	+
Aromatic Compound Resistance		+	0	0
Ketone Resistance		0	+	+
Hot Water Resistance		+	+	+

Other Property

Combustibility		HB	HB	HB
Adhesion		+	+	+
Non-toxic Harmless Sexual		0.00	0.00	0.00
Friction Coefficient		0.3	0.25	0.25

Ultraviolet UV Resistance				

Remark:

1. "+" mean anti, "-" mean none, "0" mean it depends on reality testing conditions.
2. Above data are provided by the raw material suppliers, not guarantee the uniqueness.
3. Above data can not be regarded as the additional term for the contract
4. These products we mentioned are not suitable for medicine and tooth transplantation