

**Raw Material** Ultra High Molecular Weight Polyethylene (UHMWPE)

General Properties	Test Method	Unit	Value
Density	DIN EN ISO 1183	g/cm <sup>3</sup>	0.93
Water Absorption in air 50% r.h.	DIN 53715	%	0
Absorption 23-C In Water-Saturation	DIN 53495	%	0.02
Food Compliance	-	FDA/BfR	YES
UV Stability	-	-	YES
Mechanical Properties			
Tensile Stress At Yield At Break	DIN 53455	N/mm <sup>2</sup>	-
Elongation At Break	DIN 53453	%	-
Tensile Modulus Of Elasticity	DIN 53456	N/mm <sup>2</sup>	700
Impact Strength Charpy 7.5 J	DIN 53453	KJ/mm <sup>2</sup>	No Break
Notched Impact Strength (Charpy)	DIN 53455	KJ/mm <sup>2</sup>	No Break
Ball Indentation Hardness	DIN 53453	N/mm <sup>2</sup>	34
Shore Hardness (D)	DIN 53456	Scale D	60
Coefficient Of Friction To Steel	DIN 53375	u	0.1
Thermal Properties			
Melting Temperature	ISO 3146	°C	135
Thermal Conductivity	DIN 52612	W/km	0.40
Deformation at temperature HDT	DIN 53461	°C	-
Coefficient Of Linear Thermal Expansion	DIN 53752	10 <sup>-6</sup> K <sup>-1</sup>	150
Service Temperature, Long Term	Average	°C	80
Service Temperature, Short Term (MAX)	Average	°C	90
Minimum Operating Temperature	Average	°C	-200
Flammability	UL 94 (3-6mm thickness)	-	HB
Electrical Properties			
Dielectric Constant at 1 MHz	DIN 53483	-	3
Dielectric Dissipation Factor (1 MHz)	DIN 53483	-	0.001
Volume Resistivity	DIN 53482	Ωcm	10 <sup>12</sup>
Dielectric Strength	DIN 53481	KV/mm	45

### Applications:

- Flow Promotion Liners
- Wear Profiles
- Conveyor Components & Rollers
- Scrolls
- Skating Rink Surfaces

### Characteristics:

- Extremely Light Weight & Tough
- Excellent Wear Resistance
- Good Chemical Resistance
- Low Co-efficient Of Friction
- Impact Proof



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