

TECHNICAL DATA SHEET

U.H.M.W.P.E (Ultra High Molecular Weight Poly Ethylene)

Rod & Sheet Colour: White & Black

GENERAL

Density	0.93 g/cm ³	ISO 1183	DIN 53479
Water absorption in air 50% r.h.	0 %	ISO 62	DIN 53715
Absorption 23-C in water-saturation	0.02 %	ISO 62	DIN 53495
Food Compliance – Yes		FDA / BfR	

MECHANICAL PROPERTIES

Tensile Modulus of elasticity	700 N/mm ²	ISO 527	DIN53455
Impact strength Charpy 7.5 J	no break	ISO R179	DIN53453
Notched impact strength Charpy	no break	ISO179/3C	DIN53453
Ball indentation hardness	34 N/mm ²	ISO2039.1	DIN53456
Shore hardness (D)	D60	ISO2039.2	DIN53456
Coefficient of friction to steel ^[12]	0.1	ISO 8295	DIN 53375

THERMAL PROPERTIES

Melting point	135 °C	ISO 3146	
Thermal conductivity	0.40 W/ (km)	ISO 22007.2	DIN 52612
Linear expansion coefficient 23-60°C	150 x 10 ⁻⁶ K ⁻¹	ISO 11359	DIN 53752
Operating temperature continuously ^[17]	80 °C		
Operating temperature short period-no load ^[18]	90 °C		
Minimum operating temperature ^[19]	-200 °C		
Flammability UL 94 (3-6 mm thickness)	HB		UL94
Oxygen index (LOI)	18 %	ISO4589	DIN 22117

ELECTRICAL PROPERTIES

Dielectric constant at 1 MHz	3	ISO 250	DIN 53483
Dielectric strength	45 KV/mm	ISO 243	DIN 53481
Volume resistivity	10 ¹² Ωcm	ISO 93	DIN 53482
Dissipation factor tan Δ at 1MHz	0.001	ISO 250	DIN 53483

Characteristics:

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

Applications:

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

Please Note: The above Technical Data Sheet is a general guide to the physical properties of the material. This information is given without Warranty or Liability. It is the customers responsibility to determine if this product is suitable for the application.