



TECHNICAL DATA SHEET UHMWPE (WEAREX®)

	Unit	Test method	VIRGIN	REGEN.
Mechanical properties				
Density	g/cm ³	DIN 53479	~ 0,96	~ 0,96
Tensile strength	N/mm ²	DIN 53455	27	27
Shore D hardness, 15s - Value	Scale D	DIN 53505	64 - 67	64 - 68
Ball indentation hardness, 30s - Value	N/mm ²	DIN ISO 2039 Part 1	38	40
Ultimate tensile strength	N/mm ²	DIN 53455	40.5	30
Elongation at break	%	DIN ISO / R 527	400	200
Modulus of elasticity	N/mm ²	DIN 53457	700	~ 900
Notched impact strength (Charpy)	kJ/m ²	DIN 53457	> 80 - 140	> 30 - 110
Abrasion	%	Sand Slurry method	100	~ 130
Coefficient of friction	μ		0.1 - 0.2	0.2
Thermal properties				
Dimensional stability under heat	°C	DIN 53461	47	47
Vicat softening temperature	°C	DIN 53460	79	79
Crystalline melting range	°C	DTA	130 - 135	130 - 135
Thermal conductivity at 23°C	W/ (K * m)		0.42	0.42
Specific heat at 23°C	kJ / (K * Kg)		1.8	1.8
Coefficient of linear expansion at 23°C	10 ⁻⁵ * (1/K)	DIN ISO 11359	20	20
Fire behaviour		UL 94	HB	HB
Application temperature (min.)	°C		-200	-200
Application temperature (constant)	°C		80	80
Moisture absorption	%		< 0.01	< 0.01
Electrical properties				
Specific volume resistance	Ω * cm	IEC 60093	≥10 ¹⁵	≥10 ¹⁵
Surface resistance	Ω	IEC 60093	≥10 ¹⁴	≥10 ¹³
Dielectric strength	KV/mm	IEC 60243	45	40

Application

- Heavy-duty industrial components.
- Applications requiring low temperature impact strength.
- Protective lining and material flow enhancement e.g. lining for chutes and hoppers
- Wear strips, slide plates & outrigger pads
- Wear components and non-stick surfaces in material handling applications requiring corrosion resistance e.g. sewage treatment and chemical plants, salt mines.
- Change parts for the bottling industry.
- Chain and door guides and runners, as well as dough rollers in food industry.

Standard Options

SHEET: Natural, Black & Green - 3000 mm x 1220 mm & 3 mm to 100 mm thick

ROD: Natural & Black Diameters: 20 mm to 200 mm in 1000mm & 2000mm lengths

Standard stock includes:

NATURAL food grade, GREEN food grade & regen., BLACK food grade, virgin & regen.

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