



## TECHNICAL DATA SHEET UHMWPE (WEAREX®)

	Unit	Test method	VIRGIN	REGEN.
<b>Mechanical properties</b>				
Density	g/cm <sup>3</sup>	DIN 53479	~ 0.96	~ 0.96
Tensile strength	N/mm <sup>2</sup>	DIN 53455	27	27
Shore D hardness, 15s - Value	Scale D	DIN 53505	64 - 67	64 - 68
Ball indentation hardness, 30s - Value	N/mm <sup>2</sup>	DIN ISO 2039 Part 1	38	40
Ultimate tensile strength	N/mm <sup>2</sup>	DIN 53455	40.5	30
Elongation at break	%	DIN ISO / R 527	400	200
Modulus of elasticity	N/mm <sup>2</sup>	DIN 53457	700	~ 900
Notched impact strength (Charpy)	kJ/m <sup>2</sup>	DIN 53457	> 80 - 140	> 30 - 110
Abrasion	%	Sand Slurry method	100	~ 130
Coefficient of friction	μ		0.1 - 0.2	0.2
<b>Thermal properties</b>				
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 <sup>-5</sup> * (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
<b>Electrical properties</b>				
Specific volume resistance	Ω * cm	IEC 60093	≥10 <sup>15</sup>	≥10 <sup>15</sup>
Surface resistance	Ω	IEC 60093	≥10 <sup>14</sup>	≥10 <sup>13</sup>
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 - 3000mm x 1220mm in 3mm to 100mm thick

ROD: Natural & Black - Ø20mm to Ø200mm in 1000mm & 2000mm lengths

### Standard stock includes:

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

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