

# Technical datasheet

## PE 500 (Polyethylene/HMW-PE)

<b>Example of application</b>
› cutting board pad; sliding component; impact protection

<b>Advantages</b>	<b>Disadvantages</b>
› good anti-friction properties › very low water absorption › good efficiency	› limited weldability › high thermal expansion

<b>Basic information</b>	<b>Specification</b>
<b>Format</b>	<b>round material:</b> 30 mm up to 200 mm available in 2 m length <b>sheets:</b> 5 mm up to 100 mm available in 2 m x 1 m

Physical properties	Standard term/Specification*	Unit	Testing method
Density	0.96	g/cm <sup>3</sup>	ISO 1183
Moisture ingress	0.01	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	28	MPa	DIN EN ISO 527
Elongation at break	650	%	DIN EN ISO 527
E-Module	1.100	MPa	DIN EN ISO 527
Notch toughness	25	kJ/m <sup>2</sup>	ISO 179
Rochwellhardness	50	MPa	DIN EN ISO 2039

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.40	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	1.5	K <sup>-1</sup> · 10 <sup>-4</sup>	DIN 53752
	3.0	mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, long-term	80	°C	
Max. operating temperature, short-term	120**	°C	
Min. operating temperature, long-term	-80	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10 <sup>14</sup>	Ω·cm	DIN IEC 60093
Outer surface coefficient	10 <sup>14</sup>	Ω	DIN IEC 60093
Puncture resistance	150	kV/mm	DIN EN 60243

<b>Legend</b>
n.sp. = not specified

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.

\*Higher specification on request. \*\*Depending on mechanical load.

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