Technical datasheet

PE 1000 Regenerat (polyethylene/UHMW-PE, regenerated)

Example of application
› mechanical engineering; slide rail; conveyor technology

Advantage	Disadvantages
› good wear resistance › anti-friction properties	› coloured spots on surface are possible › poor mechanical properties

Basic information	Specification
Format	sheets: 5 mm up to 100 mm available in 2 m x 1 m, 3 m x 1.25 m or on request

Physical properties	Standard term/Specification*	Unit	Testing method
Density	0.94	g/cm^3	ISO 1183
Moisture ingress	0.01	%	DIN EN ISO 62

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	24	MPa	DIN EN ISO 527
Elongation at break	200	%	DIN EN ISO 527
E-module	800	MPa	DIN EN ISO 527
Notch toughness	> 60	kJ/m^2	ISO 179
Rockwellhardness	38	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	1.5	°C^{-1}·10^{-4}	ISO 11359-2
	3.0	mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
Max. operating temperature, short-term	80	°C	
Max. operating temperature, long-term	100	°C	
Min. operating temperature, long-term	- 100		

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10^9	Ω·cm	DIN EN 62631-3-1
Outer surface coefficient	10^9	Ω	DIN EN 62631-3-1
Puncture resistance	40	kV/mm	DIN EN 60243

Legend
n.sp. = not specified n.a. = not applicable

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.

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