Technical datasheet

PE 1000 (Polyethylene/UHMW-PE) blue MD

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

Advantages	Disadvantages
› metal detectable › good anti-friction properties › high chemical resistance › very high impact resistance › good wear resistance	› high thermal expansion › bad mechanical properties

Basic information	Specification
Format	**round material**: 20 mm up to 200 mm available in 2 m length **sheets:** 1 mm up to 100 mm available in 2 m x 1 m

Physical properties	Standard term/Specification*	Unit	Testing method
Density	1.2	g/cm³	DIN 53479
Moisture ingress	0.01	%	

Mechanical properties	Standard term/Specification*	Unit	Testing method
Tensile strength	> 17	MPa	DIN 53455
Elongation at break	> 200	%	DIN ISO R 527
E-Module	1.000	N/mm²	DIN 53457
Notch toughness	< 100	kJ/m²	DIN 53453
Rochwellhardness	42	N/mm²	DIN ISO 2039 part 1

Thermal properties	Standard term/Specification*	Unit	Testing method
Thermal conductivity	0.42	W/(m·K)	DIN 52612
Linear thermal expansion coefficient based on a fixed initial length	2.0	$K^{-1} \cdot 10^{-4}$	DIN 53752
	4.0	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	n.sp.	°C	
Min. operating temperature, long-term	-200	°C	

Electrical properties	Standard term/Specification*	Unit	Testing method
Resistance	10^{13}	Ω·cm	DIN IEC 60093
Outer surface coefficient	10^{12}	Ω	DIN IEC 60093
Puncture resistance	45	kV/mm	DIN EN 60243

Legend
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.

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. The German version of this data shall prevail. As of 1219.

technical plastics

noltewerk GmbH & Co. KG · Mergenthalerstr. 15 · 48268 Greven · Germany · t +49 (25 71)16-0 · f +49 (25 71)16-402 · info@noltewerk.de · www.noltewerk.de