Product information

Wefapress PS 1000®

PS 1000® is an ultrahigh molecular weight low pressure polyethylene with a molecular weight of approx. 9.2 million g/mol. It is possible to enhance and customise the properties of ST 1000® by using specially selected carbon black and graphite materials. The characteristics of PS 1000® are as follows:

- high mechanical load bearing capacity
- extremely low wear and good sliding properties
- high bending- and impact strength

Standard colours:	black
Special colours:	--
Form of delivery:	sheets, rods (pressed) (catalogue semi finished products)
Finished parts:	on request

Fields of application:

- paper industry
- mechanical engineering
- transport and conveyor systems
- agriculture
- filter industry

Wefapress Beck + Co. GmbH · Up de Hacke 21/31 · D-48691 Vreden
Phone: 0049-2564-9329-0 · Fax: 0049-2564-932945 · Internet: www.wefapress.com · Email: info@wefapress.com

Technical Data Sheet

Material designation	PS 1000®		
Raw material	PE-UHMW		
Material colour(s)	black		
Properties	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		approx. 9.2 mill.
Mechanical properties			
Density	g/cm^3	DIN 53479	0.95
Tensile strength	N/mm^2	DIN 53455	22
Shore D hardness, 15s	D scale	DIN 53505	64 - 68
Ball indentation hardness, 30s	N/mm^2	DIN ISO 2039 part 1	46
Ultimate tensile strength	N/mm^2	DIN 53455	41
Elongation at break	%	DIN ISO / R 527	330
Modulus od elasticity	N/mm^2	DIN 53457	700
Notched impact strength (Charpy)	kJ/m^2	DIN 53453	>80 –130
Abrasion	%	Sand slurry method	~70
Coefficient of friction			0.1
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	79
Crystallite melting range	°C	DTA	130 ~135
Thermal conductivity at 23°C	W/m * K	DIN 52612	0.42
Specific heat at 23°C	kg/kJ * K		1.8
Coefficient of linear expansion at 23°C	K^{-1}	DIN 53752	1.5×10^{-4}
Application temperature (min.)	°C		-200
Application temperature (constant)	°C		80
Application temperature (max.)	°C		90
Electrical properties			
Dielectric strength	kV/mm	DIN 53481	45

Notes for the user:
Data sheet specifications are made to our today's knowledge. This information does not mean that certain properties are agreed upon or assured. Whether or not a material is suitable for a given application is the user's decision. All specifications are subjekt to change.

Vreden, October 2005

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