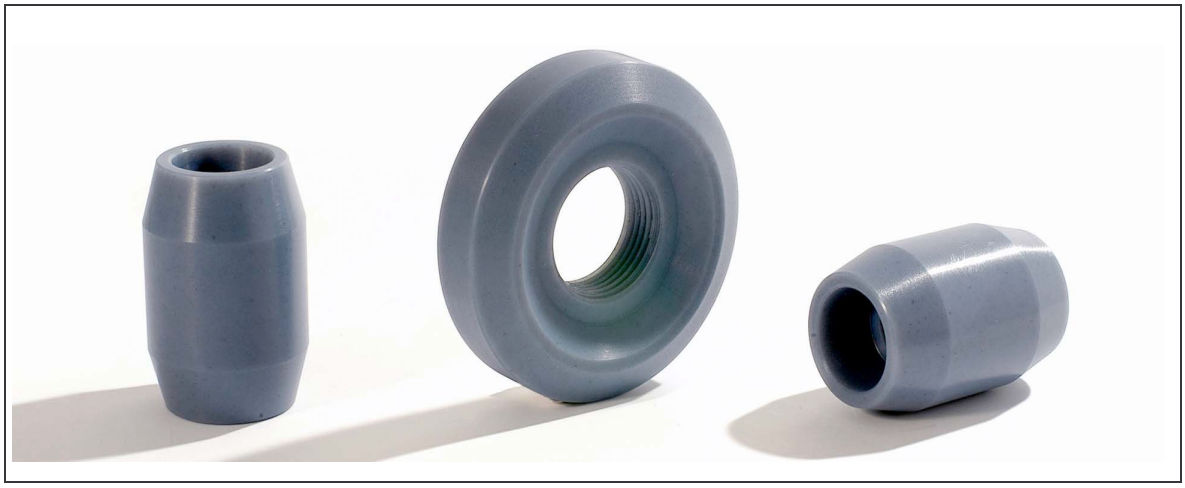
Product information

Wefapress ST 6000® GB

(DIN 16972 TG 1)

ST 6000® GB is an ultrahigh molecular weight low pressure polyethylene with a molecular weight of approx. 6 million g/mol. By using specially selected addtives it is possible to enhance and customise the properties of the ST 1000® material. ST 6000® GB possesses an increased wear resistance compared to the normal standard types. The characteristics of ST 6000® GB are as follows:

- highest wear resistance and enhanced sliding properties
- high bending- and impact strength
- no moisture absorption
- high chemical resistance



Standard colours:	grey-blue
Special colours:	--
Form of delivery:	sheets, rods (pressed) (catalogue semi finished products)
Finished parts:	on request
Fields of application:	• chemical industry • food industry • mechanical engineering • transport- and conveyor systems

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	ST 6000® GB		
Raw material	PE-UHMW		
Material colour(s)	grey-blue		
Properties	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		~ $6 * 10^6$
Mechanical properties			
Density	g/cm^3	DIN 53479	0.94
Shore D hardness, 15s	D scale	DIN 53505	66
Ball indentation hardness, 30s	N/mm^2	DIN ISO 2039 part 1	43
Elongation at break	%	DIN ISO / R 527	600
Notched impact strength (Charpy)	kJ/m^2	DIN 53453	without break
Abrasion	%	Sand slurry method	85
Thermal properties			
Crystallite melting range	°C	DTA	135/138
Coefficient of linear expansion at 23°C	K^{-1}	DIN 53752	$1.8*10^{-4}$
Application temperature (min.)	°C		-269°
Application temperature (constant)	°C		80°
Application temperature (max.)	°C		100°
Electrical properties			
Volume resistivity	Ω cm	DIN 53482	$<10^{16}$
Surface resistance	Ω	DIN 53482	$<10^{14}$
Dielectric strength	kV/mm	DIN 53481	90

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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