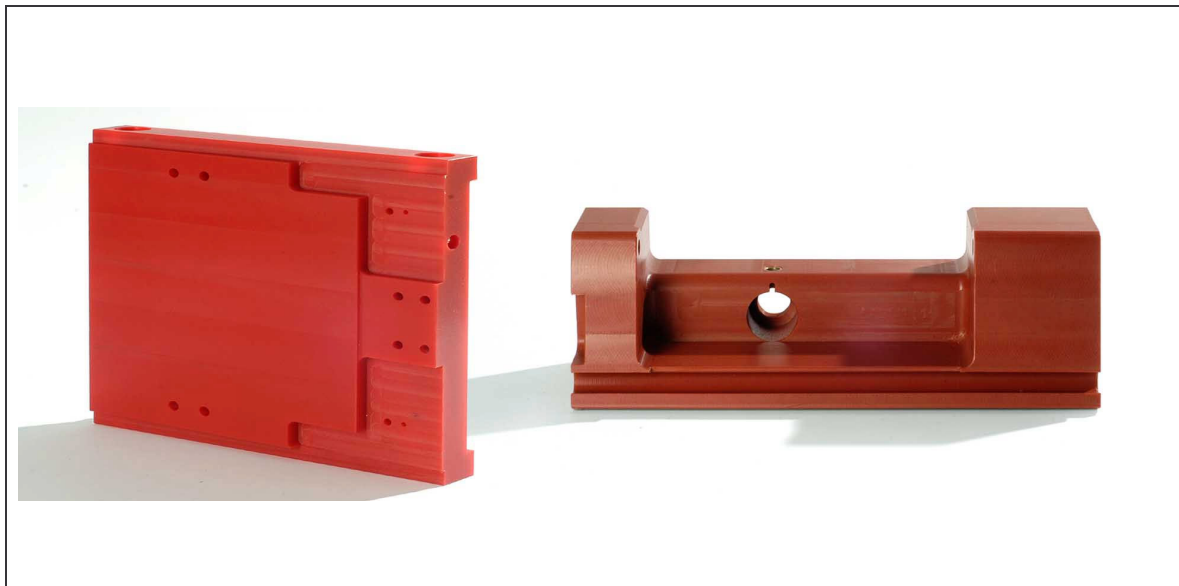


Product information

Wefapress ST 500[®] (DIN 16972 TG 3)

St 500[®] is a high molecular weight low pressure polyethylene with a molecular weight of 500,000 g/mol. By using specially selected additives it is possible to enhance and customise the properties of ST 500[®]. This is mainly achieved by the use of lubricants. Please ask for special data sheet regarding these modifications. The characteristics of ST 500[®] are as follows:

- physiologically harmless (BGA and FDA approved)
- outstanding wear resistance and good sliding properties
- high bending and impact resistance
- highest cold resistance



Standard colours:

Special colours:

Form of delivery:

natural colour (white), black and green

RAL-K7, catalogue finished products: page 18

sheets, rods

(catalogue semi finished products / conveyor systems)

Finished parts:

on request

Fields of application:

- food industry
- mechanical engineering
- transport and conveyor systems
- brewery technology etc.

Technical Data Sheet

Material designation	St 500[®]		
Raw material	PE-HMW		
Material colour(s)	natural / coloured		
Properties	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		0.5 * 10 ⁶
Mechanical properties			
Density	g/cm ³	DIN 53479	0.96
Tensile strength	N/mm ²	DIN 53455	27
Shore D hardness, 15s	D scale	DIN 53505	~70
Ball indentation hardness, 30s	N/mm ²	DIN ISO 2039 part 1	46
Ultimate tensile strength	N/mm ²	DIN 53455	25
Elongation at break	%	DIN ISO / R 527	100
Modulus of elasticity	N/mm ²	DIN 53457	1060
Notched impact strength (Charpy)	kJ/m ²	DIN 53453	without break
Abrasion	%	Sand slurry method	~ 250
Coefficient of friction			0.10 ~0.2
Thermal properties			
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN 53460	80
Crystallite melting range	°C	DTA	130 ~135
Thermal conductivity at 23°C	W/m * K	DIN 52612	0.41
Specific heat at 23°C	kg/kJ * K		1.8
Coefficient of linear expansion at 23°C	K ⁻¹	DIN 53752	≈2 x 10 ⁻⁴
Application temperature (min.)	°C		-100
Application temperature (constant)	°C		80
Application temperature (max.)	°C		90
Electrical properties			
Volume resistivity	Ω cm	DIN 53482	<10 ¹⁵
Surface resistance	Ω	DIN 53482	<10 ¹⁴
Dielectric strength	kV/mm	DIN 53481	40
Relative permittivity	at 50 Hz	DIN 53485	2.9

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 subject to change.

Vreden, October 2005