

Product information

Wefapress ST 7000[®] EHT (DIN 16972 TG 1)

ST 7000[®] EHT is a another development by Wefapress based on ultrahigh molecular weight low pressure polyethylene with a molecular weight of approx. 7 million g/mol. This material type has been equipped with oxidation inhibitory additives ensuring an elongated period of application at higher temperatures. The characteristics of ST 7000[®] EHT are as follows:

- higher temperature resistance
- oxidation inhibitory
- high wear resistance
- physiologically harmless



Standard colours:	white (similar to RAL 9003 signal white)
Special colours:	--
Form of delivery:	sheets, rods <small>(pressed)</small> (catalogue semi finished products / conveyor systems)
Finished parts:	on request
Fields of application:	<ul style="list-style-type: none">• food- and pharmaceutical industry• bakery machines• mechanical engineering• chemical industry

Technical Data Sheet

Material designation	ST 7000[®] EHT		
Raw material	PE UHMW		
Material colour(s)	natural		
Properties	Unit	Test method	Value
Molecular weight (average molar mass)	g/mol		$\sim 7 \cdot 10^6$
Mechanical properties			
Density	kg/m ³	ISO 1183	930
Water absorption	%	ISO 62	< 0.01
Shore D hardness, 15s		ISO 868	60 - 65
Ball indentation hardness, 30s	N/mm ²	ISO 2039-1	30 - 35
Yield stress	MPa	ISO 527	≥ 17
Elongation at break	%	ISO 527	≥ 350
E-module tensile test	MPa	ISO 527	700
Notched impact strength (Charpy)	kJ/m ²	ISO 11542-2	≥ 100
Abrasion	%	Sand slurry method	80
Coefficient of friction			0.12
Thermal properties			
Melting temperature DSD, 10 K/min	°C	ISO 3146	135 - 138
Vicat softening temperature	°C	ISO 306	80
Thermal conductivity at 23°C	W/m * K	ISO 52612	approx. 0.4
Coefficient of linear expansion at 23°C	K ⁻¹	ISO 11359	$2 \cdot 10^{-4}$
Application temperature (min.)	°C		- 200
Application temperature (short time)	°C		135
Application temperature (max.)	°C		100
Electrical properties			
Volume resistivity	$\Omega \cdot m$	IEC 60093	$> 10^{12}$
Surface resistance	Ω	IEC 60093	$> 10^{12}$
Dielectric strength	kV/mm	IEC 60243	45
Relative permittivity	at 100 Hz	IEC 60250	2.1
Dielectric dissipation factor	at 100 Hz	IEC 60250	$3.9 \cdot 10^{-4}$

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