

## Technical data sheet

### A4® FQ 1000

<b>General properties</b>			
Material designation	A4® FQ 1000		
Material colour(s)	black (6000)		
Raw material	PE-UHMW   Ultra-high-molecular polyethylene		
Molecular weight (Average molar mass)	-		
<b>Mechanical properties</b>			
	Unit	Test method	Value
Density	g/cm <sup>3</sup>	DIN EN ISO 1183	~ 0,96
Tensile strength	MPa	DIN EN ISO 527	≥ 20
Shore D hardness, 15s - Value	Skala D	DIN EN ISO 868	64 - 68
Ball indentation hardness, 30s - Value	MPa	DIN ISO 2039 Teil 1	40
Ultimate tensile strength			30
Elongation at break		DIN EN ISO 527	> 150
Modulus of elasticity	MPa	DIN EN ISO 527	~ 900
Notched impact strength (Charpy)	kJ/m <sup>2</sup>	DIN EN ISO 179	≥ 80
Wear resistance	%	Sand Slurry method	125 ± 25
Coefficient of friction (to steel)	μ		0,2
<b>Thermal properties</b>			
	Unit	Test method	Value
Dimensional stability under heat	°C	DIN 53461	47
Vicat softening temperature	°C	DIN EN ISO 306	79
Crystalline melting range	°C	DIN EN ISO 11357	130 - 135
Thermal conductivity at 23°C	W / (K * m)	DIN 52612	~ 0,4
Specific heat at 23°C	kJ / (K * Kg)		1,8
Coefficient of linear expansion at 23°C	10 <sup>-5</sup> * (1/K)	DIN ISO 11359	20
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 200
Application temperature (constant)	°C		+ 80
Moisture absorption	%		< 0,01
<b>Electrical properties</b>			
	Unit	Test method	Value
Specific volume resistance	Ω * cm	IEC 60093	10 <sup>15</sup>
Specific surface resistance	Ω	IEC 60093	10 <sup>14</sup>
Dielectric strength	KV/mm	IEC 60243	40
<b>Conformity with food secure regulations</b>			
FDA	-		
EU	-		

Our employees are available to answer all of your questions.

You can find additional information on our material qualities on the internet at [www.wefapress.com/en/materials](http://www.wefapress.com/en/materials).

All stated information reflects our current knowledge. No agreement or guarantee regarding specific characteristics can be derived from the information contained in the datasheets. Each user is responsible for deciding on the suitability of a material for a specific purpose. The data supplied are subject to change.

The materials labelled as a "Food Secure Product" (FSP) comply with the provisions of Regulations (EU) No. 10/2011 and No. 1935/2004.