

## Technical data sheet

### St 9000 MOS<sup>2</sup>

<b>General properties</b>			
Material designation	St 9000 MOS <sup>2</sup>		
Material colour(s)	anthracite (5014)		
Raw material	PE-UHMW   Ultra-high-molecular polyethylene		
Molecular weight (Average molar mass)	~ 9,2 Mio.		
<b>Mechanical properties</b>			
	Unit	Test method	Value
Density	g/cm <sup>3</sup>	DIN EN ISO 1183	0,961
Tensile strength	MPa	DIN EN ISO 527	21
Shore D hardness, 15s - Value	Skala D	DIN EN ISO 868	68
Ball indentation hardness, 30s - Value	MPa	DIN ISO 2039 Teil 1	42
Ultimate tensile strength	MPa	DIN EN ISO 527	33
Elongation at break	%	DIN EN ISO 527	360
Modulus of elasticity	MPa	DIN EN ISO 527	700
Notched impact strength (Charpy)	kJ/m <sup>2</sup>	DIN EN ISO 179	o.Br.
Wear resistance	%	Sand Slurry method	~ 70
Coefficient of friction (to steel)	μ		~ 0,08
<b>Thermal properties</b>			
	Unit	Test method	Value
Dimensional stability under heat	°C	DIN 53461	45
Vicat softening temperature	°C	DIN EN ISO 306	80
Crystalline melting range	°C	DIN EN ISO 11357	135
Thermal conductivity at 23°C	W / (K * m)	DIN 52612	0,4
Specific heat at 23°C	kJ / (K * Kg)		1,4
Coefficient of linear expansion at 23°C	10 <sup>-5</sup> * (1/K)	DIN ISO 11359	17
Fire behaviour		UL 94	HB
Application temperature (min.)	°C		- 269
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	90
<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.