

Technical data sheet

St 9000 MOS²

General properties				
Material designation	St 9000 MOS ²			
Material colour(s)	anthracite (5014)			
Raw material	PE-UHMW Ultra-high-molecular polyethylene			
Molecular weight (Average molar mass)	~ 9,2 Mio.			
Mechanical properties		Unit	Test method	Value
Density	g/cm ³	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 ²	DIN EN ISO 179	o.Br.	
Wear resistance	%	Sand Slurry method	~ 70	
Coefficient of friction (to steel)	μ		~ 0,08	
Thermal properties		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 ⁻² * (1/K)	DIN ISO 11359	17	
Fire behaviour	°C	UL 94	HB	
Application temperature (min.)	°C		- 269	
Application temperature (constant)	°C		+ 80	
Moisture absorption	%		< 0,01	
Electrical properties		Unit	Test method	Value
Specific volume resistance	? * cm	IEC 60093	10 ¹²	
Specific surface resistance	?	IEC 60093	10 ¹²	
Dielectric strength	KV/mm	IEC 60243	90	
Conformity with food secure regulations				
EPA	-			
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.

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.