

# Technical datasheet

## PTFE (Polytetrafluoroethylene) with 25% carbon fibre

Example of application					
› sliding components, seals, linings					
Advantages		Disadvantages			
› excellent anti-friction properties › very high temperature resistance › excellent chemical resistance › very low strain		› low mechanical properties			
Basic information		Specification			
<b>Format</b>		round material: 10 mm up to 100 mm available in 2 m length sheets: 2 mm up to 20 mm available in 1.2 m x 1.2 m			
Physical properties		Standard term/Specification*		Unit	Testing method
<b>Density</b>		2.11		g/cm <sup>3</sup>	DIN 53479
<b>Moisture ingress</b>		n.sp.		%	DIN EN ISO 62
Mechanical properties		Standard term/Specification*		Unit	Testing method
		pressed	extruded		
<b>Tensile strength</b>		12-19	10-15	N/mm <sup>2</sup>	DIN 53455
<b>Elongation at break</b>		130-190	90-140	%	DIN 53455
<b>E-Module</b>		n.sp.		MPa	DIN EN ISO 527
<b>Notch toughness</b>		83		J/m <sup>2</sup>	ASTM D256
<b>Rochwellhardness</b>		60-68			DIN 53505
Thermal properties		Standard term/Specification*		Unit	Testing method
<b>Thermal conductivity</b>		0.58		W/(m·K)	DIN 52612
<b>Linear thermal expansion coefficient based on a fixed initial length</b>		0.95		K <sup>-1</sup> · 10 <sup>-4</sup>	DIN 53752
		1.9		mm	At initial length of 1.000 mm and a temperature difference of 20 °C.
<b>Max. operating temperature, long-term</b>		260		°C	
<b>Max. operating temperature, short-term</b>		n.sp.		°C	
<b>Min. operating temperature, long-term</b>		n.sp.		°C	
Electrical properties		Standard term/Specification*		Unit	Testing method
<b>Resistance</b>		10 <sup>3</sup>		Ω·cm	DIN 53482
<b>Outer surface coefficient</b>		10 <sup>3</sup>		Ω	DIN 53482
<b>Puncture resistance</b>		n.sp.		kV/mm	DIN EN 60243
Legend					
n.sp. = not specified					

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.

\*Higher specification on request.

All information based on current knowledge and experience. Information provided shall not exempt the contractor or user from conducting own tests. A legally binding warranty as to product features or its suitability for specific purposes may not be derived therefrom. Compliance with any proprietary rights as well as existing laws or regulations is the responsibility of the recipient of our products. No liability assumed for printing and any other errors. Technical data subject to change without notice. Reproduction or duplication of this document or its contents - whole or in part - is only permitted with express approval by company noltewerk. The German version of this data shall prevail. As of 1119.



technical  
plastics