

## Engineering Plastics - PTFE

### Rod

### Properties

Stock		Electrical Properties			
Dia (mm)	Weight (kg/m)	Property	Parameter	Value	Norm
4	0.030	Specific Surface Resistance		10 <sup>16</sup> Ω	ASTM D 257
5	0.046				
6	0.067	Specific Volume Resistance		10 <sup>17</sup> Ω*cm	ASTM D 257
8	0.117				
10	0.182	Dielectric Strength	in air, thickness 0.125mm	80 kV/mm	ASTM D 149
12	0.269	Dielectric Constant	50-109 Hz	2.1	ASTM D 150
14	0.362				
15	0.414	<b>Mechanical Properties</b>			
16	0.470	<b>Property</b>	<b>Parameter</b>	<b>Value</b>	<b>Norm</b>
18	0.591	Tensile Strength		22 MPa	ASTM D 4894
20	0.727	Elongation at Break		220%	ASTM D 4894
22	0.892	Compression Strength	1% deformation	5 MPa	ASTM D 695
25	1.14	Shore Hardness	Shore D	55	ASTM D 2240
28	1.43	<b>Other properties</b>			
30	1.66	<b>Property</b>	<b>Parameter</b>	<b>Value</b>	<b>Norm</b>
32	1.88	Water Absorption	23°C	< 0.01%	ASTM D 570
35	2.24	Flamability (UL94)	corresponding to	V0	DIN IEC 60695- 11-10
40	2.94				
45	3.70	<b>Thermal Properties</b>			
50	4.54	<b>Property</b>	<b>Parameter</b>	<b>Value</b>	<b>Norm</b>
55	5.54	Glass Transition Temperature		-20 °C	DIN 53765
60	6.56	Service Temperature	short term	260 °C	
65	7.70	Service Temperature	long term	260 °C	
70	8.90	Thermal Expansion (CLTE)	25 - 100°C long	13 10 <sup>-5</sup> K <sup>-1</sup>	ASTM D 696
75	10.25				
80	11.63	Thermal Conductivity		0.20 W/(K*m)	ASTM C 177
90	14.65				
100	18.17				
110	21.91				
120	26.00				
130	30.40				
140	35.70				
150	40.90				
160	46.40				

### Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.