

**Product Texts****DESCRIPTION**

Elastollan 1180 A is a polyether based TPU

**SPECIAL PROPERTIES**

excellent resistance to hydrolysis and good flexibility at low temperature,  
resistance to microbiological attack, good wear performance,  
high tensile strength, good damping behavior

**TYPICAL APPLICATIONS**

cable sheathing, plugs and terminations, hoses, damping elements,  
profiles

**OTHER HINTS**

predrying: 2-3h at 100-110°C (air circulating oven)  
or 80-90°C (dehumidified air dryer),  
max. content of humidity before processing: 0,02%  
annealing: 20 h at 100°C in order to get optimum properties

**CHEMICAL RESISTANCE**

For detailed information on the chemical resistance of our  
materials refer to this [list of chemical resistance](#)

<b>Mechanical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>15</b>	MPa	ISO 527
<sup>[C]</sup> Stress at 50% strain	<b>3</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break	<b>&gt;50</b>	%	ISO 527
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>N</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Tensile notched impact strength, +23°C	<b>500</b>	kJ/m <sup>2</sup>	ISO 8256/1
<sup>[C]</sup> Stress at 300% elongation	<b>8</b>	MPa	ISO 527
<sup>[C]</sup> Stress at break TPE	<b>45</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break TPE	<b>&gt;300</b>	%	ISO 527
<sup>[C]</sup> Compression set at 23 °C, 24h	<b>25</b>	%	ISO 815
<sup>[C]</sup> Compression set at 70 °C, 24h	<b>45</b>	%	ISO 815
<sup>[C]</sup> Tear strength	<b>55</b>	kN/m	ISO 34-1
<sup>[C]</sup> Abrasion resistance	<b>30</b>	mm <sup>3</sup>	ISO 4649
<sup>[C]</sup> Shore A hardness	<b>80</b>	-	ISO 7619-1

[C]: CAMPUS

<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>-44</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Burning Behav. at thickness h	<b>HB</b>	class	IEC 60695-11-10
Yellow Card available	<b>yes</b>	-	-

[C]: CAMPUS

<b>Electrical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Dissipation factor, 100Hz	<b>360</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>1120</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>1E9</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	<b>1E14</b>	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	<b>39</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>600</b>	-	IEC 60112

[C]: CAMPUS

**Elastollan® 1180 A**

(TPU-ARET)

BASF Polyurethanes GmbH

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	2	%	Sim. to ISO 62
<sup>[C]</sup> Density	1110	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	200	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 294

[C]: CAMPUS

**Characteristics****Processing**

Injection Molding, Profile Extrusion

**Delivery form**

Pellets

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

**Other text information****Injection molding**

Barrel temperature : 195 - 205 °C

Melt temperature : 205 °C

Mold temperature: 25 - 40 °C

**Profile extrusion**

Barrel temperature : 160 - 180 °C