

**Product Texts**

## DESCRIPTION

Elastollan 1174 D 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

ski binding elements, ski surface films

## OTHER HINTS

predrying: 2-3h at 90-120°C  
(air circulating oven or 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](#)

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	560	MPa	ISO 527
<sup>[C]</sup> Stress at 50% strain	26	MPa	ISO 527
<sup>[C]</sup> Strain at break	>50	%	ISO 527
<sup>[C]</sup> Charpy notched impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	5	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Tensile notched impact strength, +23°C	360	kJ/m <sup>2</sup>	ISO 8256/1
<sup>[C]</sup> Stress at 100% elongation	30	MPa	ISO 527
<sup>[C]</sup> Stress at 300% elongation	45	MPa	ISO 527
<sup>[C]</sup> Stress at break TPE	50	MPa	ISO 527
<sup>[C]</sup> Strain at break TPE	>300	%	ISO 527
<sup>[C]</sup> Compression set at 23 °C, 24h	50	%	ISO 815
<sup>[C]</sup> Compression set at 70 °C, 24h	55	%	ISO 815
<sup>[C]</sup> Tear strength	220	kN/m	ISO 34-1
<sup>[C]</sup> Abrasion resistance	25	mm <sup>3</sup>	ISO 4649
<sup>[C]</sup> Shore D hardness	72	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Glass transition temperature, 10°C/min	6	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	50	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	81	°C	ISO 75-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Dissipation factor, 100Hz	330	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	420	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	>1E15	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	37	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

**Elastollan® 1174 D**

(TPU-ARET)

BASF Polyurethanes GmbH

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Density	<b>1200</b>	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	<b>240</b>	°C	ISO 294
Injection Molding, mold temperature	<b>60</b>	°C	ISO 294

[C]: CAMPUS

**Characteristics****Processing**

Injection Molding, Profile Extrusion

**Regional Availability**

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

**Delivery form**

Pellets

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

Barrel temperature : 220 - 235 °C

Melt temperature : 235 °C

Mold temperature: 25 - 40 °C