

Product Texts**DESCRIPTION**

Elastollan 1160 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

skiing boots

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
ISO Data			
^[C] Tensile Modulus	200	MPa	ISO 527
^[C] Stress at 50% strain	16	MPa	ISO 527
^[C] Strain at break	>50	%	ISO 527
^[C] Charpy notched impact strength, +23°C	N	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	16	kJ/m ²	ISO 179/1eA
^[C] Tensile notched impact strength, +23°C	510	kJ/m ²	ISO 8256/1
^[C] Stress at 100% elongation	19	MPa	ISO 527
^[C] Stress at 300% elongation	41	MPa	ISO 527
^[C] Stress at break TPE	50	MPa	ISO 527
^[C] Strain at break TPE	>300	%	ISO 527
^[C] Compression set at 23 °C, 24h	40	%	ISO 815
^[C] Compression set at 70 °C, 24h	50	%	ISO 815
^[C] Tear strength	170	kN/m	ISO 34-1
^[C] Abrasion resistance	25	mm ³	ISO 4649
^[C] Shore D hardness	59	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	-12	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	46	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	63	°C	ISO 75-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Dissipation factor, 100Hz	500	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	620	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E11	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	>1E15	Ohm	IEC 62631-3-2
^[C] Electric strength	36	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Elastollan® 1160 D

(TPU-ARET)

BASF Polyurethanes GmbH

Other properties	Value	Unit	Test Standard
^[C] Density	1180	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	230	°C	ISO 294
Injection Molding, mold temperature	60	°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 : 215 - 230 °C

Melt temperature : 230 °C

Mold temperature: 25 - 40 °C