

Product Texts**DESCRIPTION**

Elastollan R 1000 is a glass fibre-reinforced TPU

SPECIAL PROPERTIES

very good impact strength, high stiffness combined with good strain, low thermal expansion coefficient
equivalent to metal (Al), low mould shrinkage, ease of paintability

TYPICAL APPLICATIONS

technical parts

OTHER HINTS

predrying: 2-3h at 100-120°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	1000	MPa	ISO 527
^[C] Stress at break	50	MPa	ISO 527
^[C] Strain at break	40	%	ISO 527
^[C] Charpy impact strength, -30°C	130	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	N	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	20	kJ/m ²	ISO 179/1eA
^[C] Tensile notched impact strength, +23°C	610	kJ/m ²	ISO 8256/1
^[C] Stress at break TPE	50	MPa	ISO 527
^[C] Strain at break TPE	40	%	ISO 527
^[C] Shore D hardness	58	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Temp. of deflection under load, 1.80 MPa	114	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	145	°C	ISO 75-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Dissipation factor, 100Hz	280	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	650	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E10	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	>1E15	Ohm	IEC 62631-3-2
^[C] Electric strength	38	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	1	%	Sim. to ISO 62
^[C] Density	1360	kg/m ³	ISO 1183

[C]: CAMPUS

Elastollan® R 1000

(TPU-ARES)-GF

BASF Polyurethanes GmbH

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	220	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 294

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Regional Availability

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

Other text information**Injection molding**

Barrel temperature : 205 - 220 °C

Melt temperature : 220 °C

Mold temperature: 25 - 70 °C