

CAMPUS® Datasheet

Elastollan® 1185 A - (TPU-ARET)

BASF Polyurethanes GmbH



Product Texts

DESCRIPTION

Elastollan 1185 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, films,
damping elements

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
MFR range: in various MFR ranges provided

CHEMICAL RESISTANCE

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

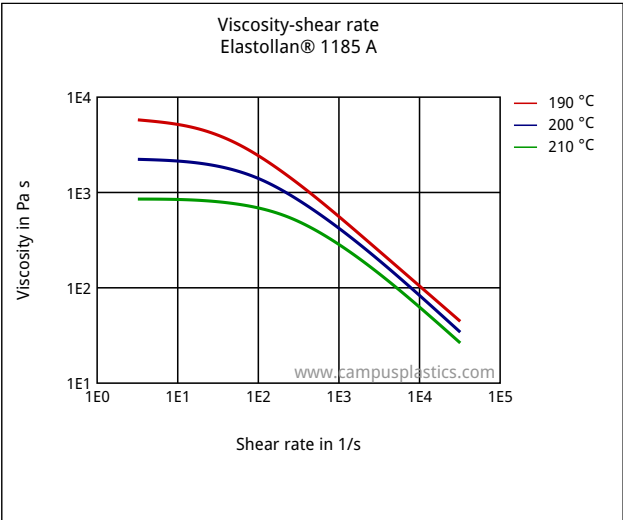
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	20	MPa	ISO 527-1/-2
Stress at 50% strain	5	MPa	ISO 527-1/-2
Stress at 100% elongation	6	MPa	ISO 527-1/-2
Stress at 300% elongation	10	MPa	ISO 527-1/-2
Stress at break TPE	45	MPa	ISO 527-1/-2
Strain at break	>50	%	ISO 527-1/-2
Strain at break TPE	>300	%	ISO 527-1/-2
Charpy notched impact strength, +23°C	N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	N	kJ/m ²	ISO 179/1eA
Tensile notched impact strength, +23°C	580	kJ/m ²	ISO 8256/1
Compression set at 23 °C, 24h	25	%	ISO 815
Compression set at 70 °C, 24h	45	%	ISO 815
Tear strength, parallel	70	kN/m	ISO 34-1
Abrasion resistance	25	mm ³	ISO 4649
Shore A hardness	87	-	ISO 48-4
Shore D hardness	36	-	ISO 48-4
Thermal properties	Value	Unit	Test Standard
Glass transition temperature, 10°C/min	-42	°C	ISO 11357-1/-2
Burning behavior at thickness h	HB	class	IEC 60695-11-10
Yellow Card available	Yes	-	-
Oxygen index	23	%	ISO 4589-1/-2
Electrical properties	Value	Unit	Test Standard
Dissipation factor, 100Hz	300	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	950	E-4	IEC 62631-2-1
Volume resistivity	1E10	Ohm*m	IEC 62631-3-1

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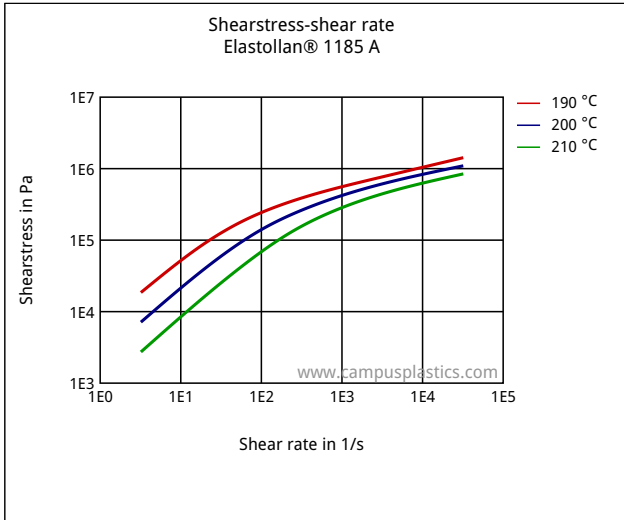
Surface resistivity	1E15	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
Other properties			
Density	1120	kg/m³	ISO 1183
Test specimen production			
Injection molding, melt temperature	210	°C	ISO 294
Injection molding, mold temperature	60	°C	ISO 294

Diagrams

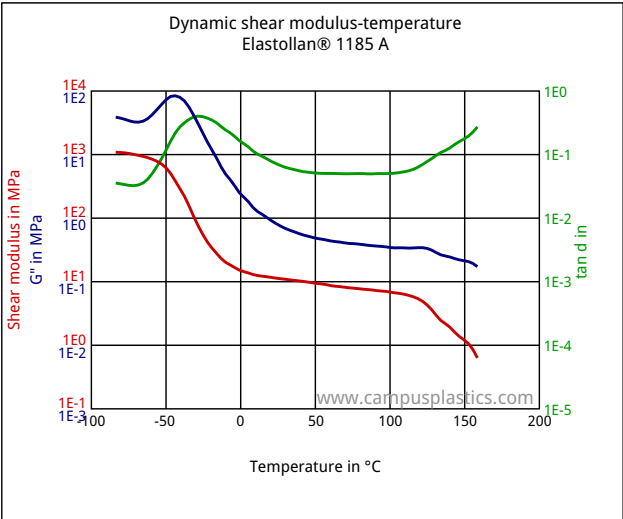
Viscosity-shear rate



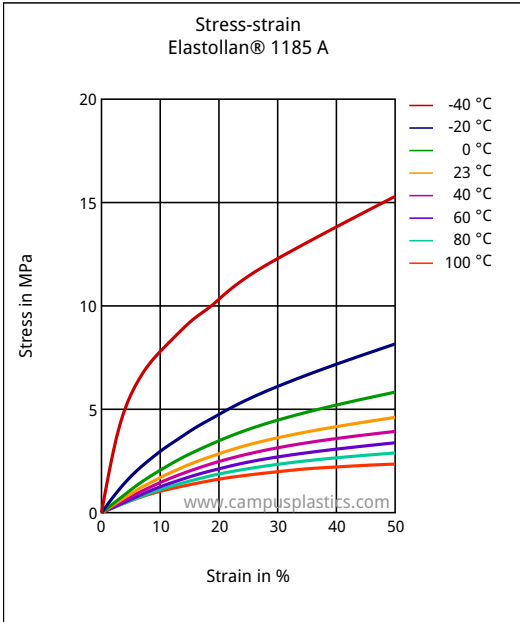
Shearstress-shear rate



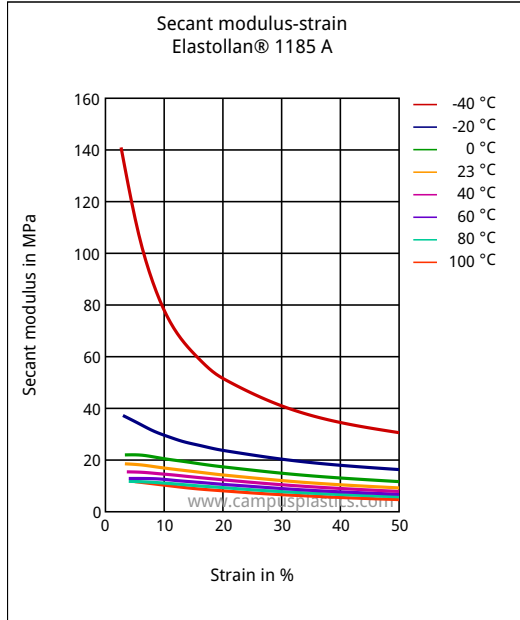
Dynamic shear modulus-temperature



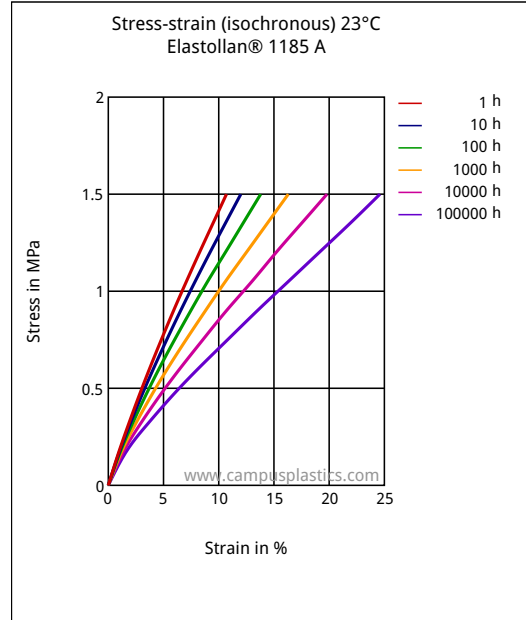
Stress-strain



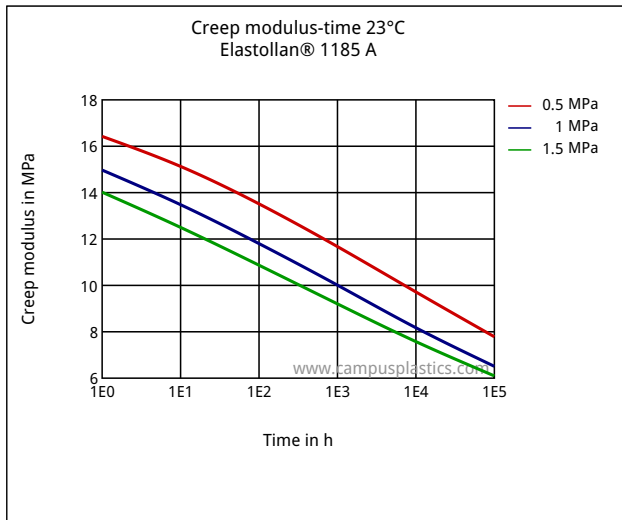
Secant modulus-strain



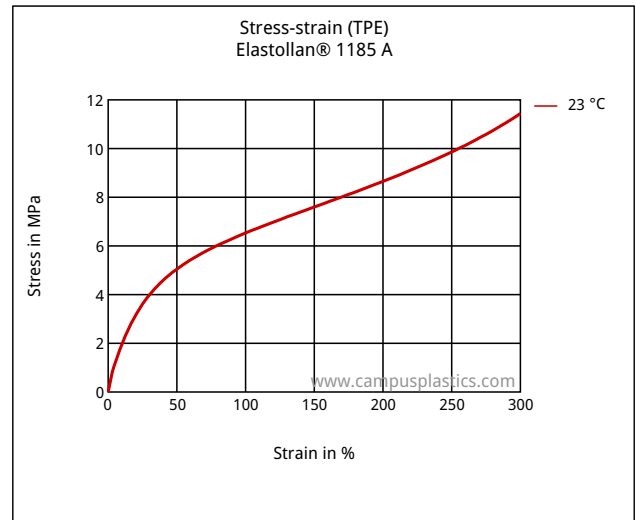
Stress-strain (isochronous) 23°C



Creep modulus-time 23°C



Stress-strain (TPE)



Characteristics

Processing

Injection Molding, Profile Extrusion, Blow Molding

Delivery form

Pellets

Other text information

Injection molding

Barrel temperature : 195 - 210 °C

Melt temperature : 210 °C

Mold temperature: 25 - 40 °C

Regional Availability

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

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Profile extrusion

Barrel temperature : 160 - 190 °C

Blow molding

Barrel temperature : 160 - 195 °C

Mold temperature : 40 - 80 °C

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