

CAMPUS® Datasheet

Elastollan® C 90 A - (TPU-ARES)

BASF Polyurethanes GmbH



Product Texts

DESCRIPTION

Elastollan C 90 A is a polyester based TPU

SPECIAL PROPERTIES

high tensile strength, excellent tear strength,
very good damping behavior, good rebound elasticity,
very good wear performance, good flexibility at low temperature
and resistance to hydrolysis

TYPICAL APPLICATIONS

technical parts, hoses, bellows, screen elements, damping elements

OTHER HINTS

predrying: 2-3h at 100-110°C (air circulating oven)
or 85-95°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](#)

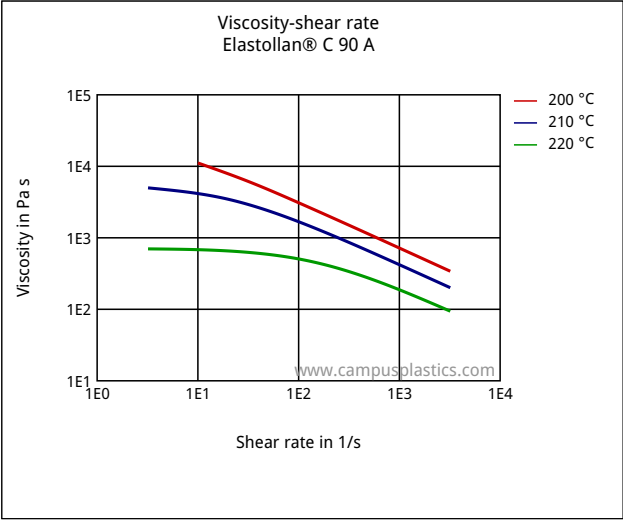
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	80	MPa	ISO 527-1/-2
Stress at 50% strain	7	MPa	ISO 527-1/-2
Stress at 100% elongation	9	MPa	ISO 527-1/-2
Stress at 300% elongation	15	MPa	ISO 527-1/-2
Stress at break TPE	55	MPa	ISO 527-1/-2
Strain at break	>50	%	ISO 527-1/-2
Strain at break 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	770	kJ/m ²	ISO 8256/1
Compression set at 23 °C, 24h	25	%	ISO 815
Compression set at 70 °C, 24h	40	%	ISO 815
Tear strength, parallel	95	kN/m	ISO 34-1
Abrasion resistance	30	mm ³	ISO 4649
Shore A hardness	93	-	ISO 48-4
Shore D hardness	39	-	ISO 48-4
Thermal properties	Value	Unit	Test Standard
Glass transition temperature, 10°C/min	-32	°C	ISO 11357-1/-2
Electrical properties	Value	Unit	Test Standard
Dissipation factor, 100Hz	620	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	690	E-4	IEC 62631-2-1
Volume resistivity	1E9	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	24	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

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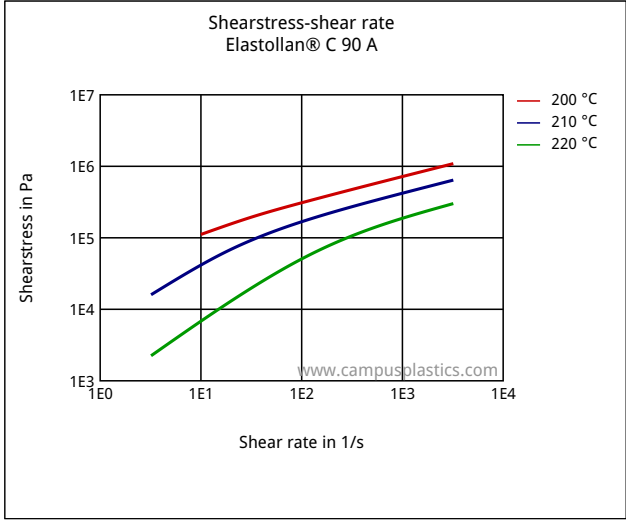
Other properties	Value	Unit	Test Standard
Density	1200	kg/m³	ISO 1183
Test specimen production	Value	Unit	Test Standard
Injection molding, melt temperature	215	°C	ISO 294
Injection molding, mold temperature	60	°C	ISO 294

Diagrams

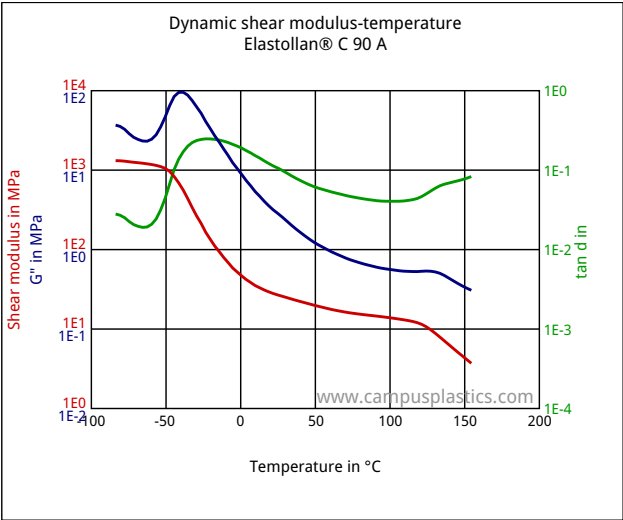
Viscosity-shear rate



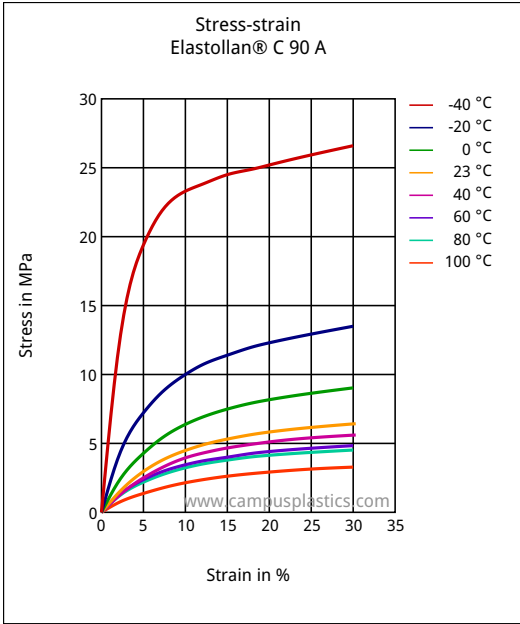
Shearstress-shear rate



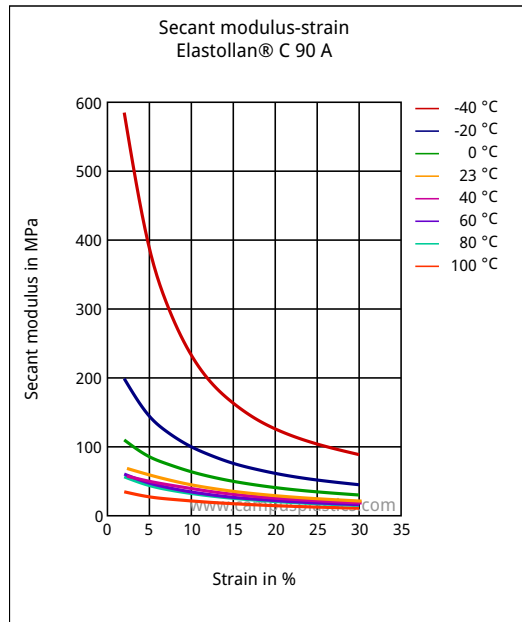
Dynamic shear modulus-temperature



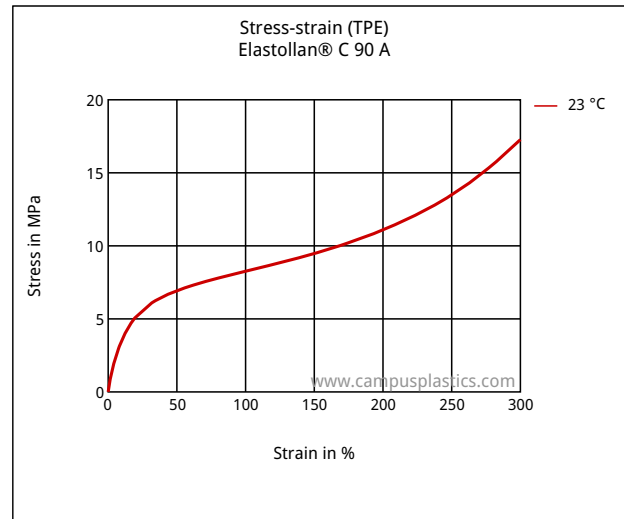
Stress-strain



Secant modulus-strain



Stress-strain (TPE)



Characteristics

Processing

Injection Molding, Profile Extrusion, Blow Molding

Delivery form

Pellets

Other text information

Injection molding

Barrel temperature : 195 - 220 °C

Melt temperature : 220 °C

Mold temperature: 25 - 40 °C

Profile extrusion

Barrel temperature : 170 - 200 °C

Blow molding

Barrel temperature : 170-205 °C

Mold temperature : 40-80 °C

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Regional Availability

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

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For more information about our products contact your
local BASF representative or

BASF Polyurethanes GmbH
European Business Management
Thermoplastische Polyurethane
Elastogranstraße 60
D-49448 Lemförde
Deutschland
Phone: 49 5443 12 3456
Fax: 49 5443 12 2555
e-mail:
elastollan-infopoint@basf.com
www.pu.basf.de

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