

# CAMPUS® Datasheet

Elastollan® C 80 A - (TPU-ARES)  
BASF Polyurethanes GmbH



## Product Texts

### DESCRIPTION

Elastollan C 80 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, profiles

### 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

### CHEMICAL RESISTANCE

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

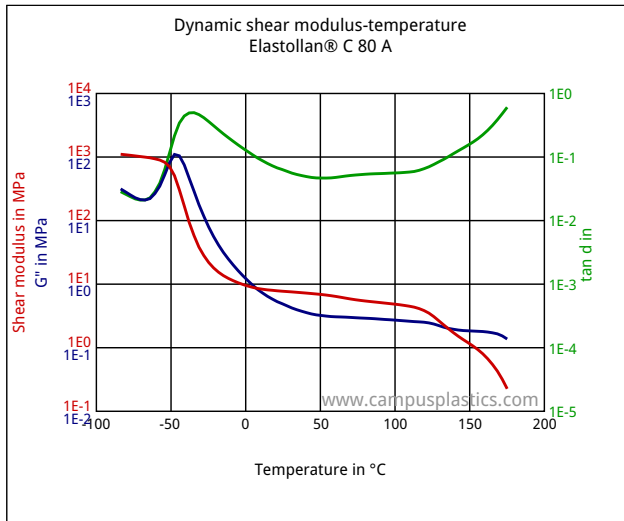
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	15	MPa	ISO 527-1/-2
Stress at 50% strain	4	MPa	ISO 527-1/-2
Stress at break TPE	50	MPa	ISO 527-1/-2
Strain at break	>50	%	ISO 527-1/-2
Strain at break TPE	>300	%	ISO 527-1/-2
Charpy notched impact strength, +23°C	N	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	N	kJ/m <sup>2</sup>	ISO 179/1eA
Tensile notched impact strength, +23°C	1100	kJ/m <sup>2</sup>	ISO 8256/1
Compression set at 23 °C, 24h	25	%	ISO 815
Compression set at 70 °C, 24h	35	%	ISO 815
Tear strength, parallel	65	kN/m	ISO 34-1
Abrasion resistance	25	mm <sup>3</sup>	ISO 4649
Shore A hardness	82	-	ISO 48-4
Thermal properties	Value	Unit	Test Standard
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Electrical properties	Value	Unit	Test Standard
Relative permittivity, 1MHz	6	-	IEC 62631-2-1
Dissipation factor, 100Hz	300	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	670	E-4	IEC 62631-2-1
Volume resistivity	1E9	Ohm*m	IEC 62631-3-1
Surface resistivity	1E13	Ohm	IEC 62631-3-2
Electric strength	22	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
Other properties	Value	Unit	Test Standard
Density	1190	kg/m <sup>3</sup>	ISO 1183

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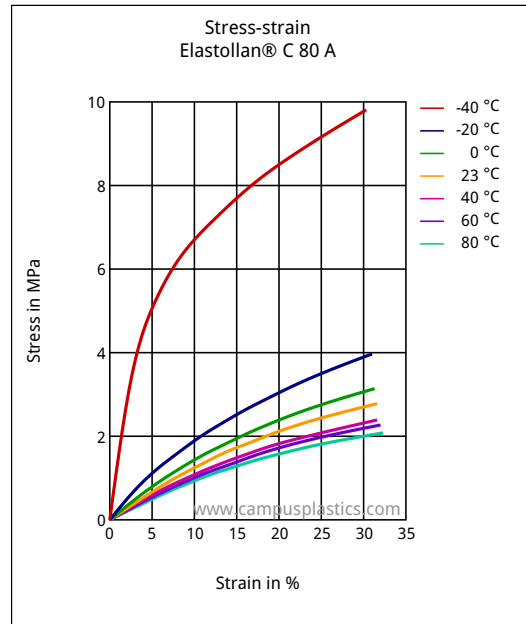
Test specimen production	Value	Unit	Test Standard
Injection molding, melt temperature	205	°C	ISO 294
Injection molding, mold temperature	60	°C	ISO 294

**Diagrams**

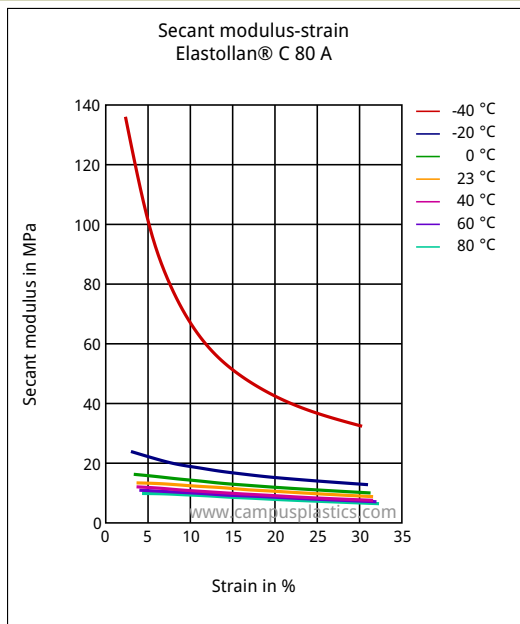
**Dynamic shear modulus-temperature**



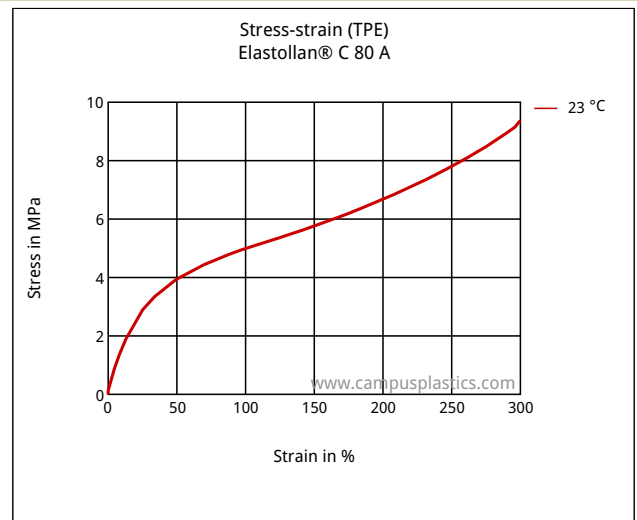
**Stress-strain**



**Secant modulus-strain**



**Stress-strain (TPE)**



**Characteristics**

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### Processing

Injection Molding, Profile Extrusion

### Delivery form

Pellets

### Regional Availability

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

### Other text information

#### Injection molding

Barrel temperature : 195 - 205 °C

Melt temperature : 205 °C

Mold temperature: 25 - 40 °C

#### Profile extrusion

Barrel temperature : 160 - 185 °C

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.

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