

# Elastollan® C 85 A

Thermoplastic Polyurethane Elastomer (Polyester)

BASF Polyurethanes GmbH

PROSPECTOR®

## Technical Data

### Product Description

Thermoplastic Polyester Polyurethane Elastomers with excellent mechanical properties. Outstanding tensile strength and high elongation at break, good damping characteristics, a high resilience performance and very good wear resistance.

Typical applications

Spiral tubing, pneumatic tubing, round belting, technical mouldings e.g. bushes, dust caps, seals, joints, blow moulded bellows, fan belts.

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Processing - Elastollan (English)</a> • <a href="#">Technical Datasheet (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E140250-222877</a>
Search for UL Yellow Card	• <a href="#">BASF Polyurethanes GmbH</a> • <a href="#">Elastollan®</a>
Availability	• Europe
Features	• Good Wear Resistance • High Elongation • High Tensile Strength • Resilient
Uses	• Belts/Belt Repair • Bushings • Caps • Seals • Tubing
Processing Method	• Blow Molding • Extrusion • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.19 g/cm <sup>3</sup>	1.19 g/cm <sup>3</sup>	ISO 1183/A
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Abrasion Loss	30.0 mm <sup>3</sup>	30.0 mm <sup>3</sup>	ISO 4649-A
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress			DIN 53504
20% Strain	435 psi	3.00 MPa	
100% Strain	798 psi	5.50 MPa	
300% Strain	1380 psi	9.50 MPa	
Tensile Stress			DIN 53504
Yield	7250 psi	50.0 MPa	
Yield <sup>4</sup>	5510 psi	38.0 MPa	
Tensile Elongation (Break)	650 %	650 %	DIN 53504
Tear Strength <sup>5</sup>	400 lbf/in	70 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72 hr	25 %	25 %	
158°F (70°C), 24 hr	35 %	35 %	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	No Break	No Break	
73°F (23°C)	No Break	No Break	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness			ISO 7619
Shore A, 3 sec	87	87	
Shore D, 3 sec	36	36	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Injection	Nominal Value (English)	Nominal Value (SI)	
Processing (Melt) Temp	338 to 464 °F	170 to 240 °C	
Mold Temperature	68.0 to 158 °F	20.0 to 70.0 °C	

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Extrusion	Nominal Value (English)	Nominal Value (SI)
Melt Temperature	302 to 446 °F	150 to 230 °C

### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> after storage in water for 21 days at 80°C

<sup>5</sup> Method Bb, Angle (Nicked)

