



Friday, March 10, 2017

Elastollan® 1185 A 10 FC

BASF Polyurethanes GmbH - Thermoplastic Polyurethane Elastomer (Polyether)

General Information

Product Description

Thermoplastic Polyether-Polyurethane with outstanding hydrolysis resistance, low temperature flexibility and high resistance to micro-organisms.

General suitability for food contact related applications in FDA and EU regulated markets (please see food contact information)

General

Material Status	• Commercial: Active		
Features	• Food Contact Acceptable	• Low Temperature Flexibility	• Microbe Resistant
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM and ISO Properties¹

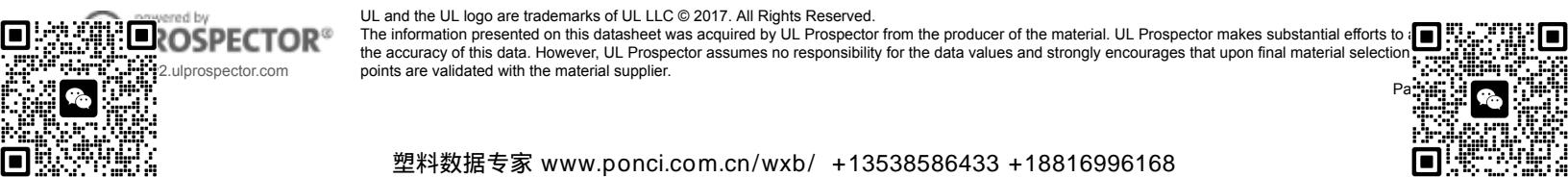
	Nominal Value	Unit	Test Method
Physical			
Density	1.12	g/cm ³	ISO 1183/A
Mechanical			
Abrasion Loss	25.0	mm ³	ISO 4649-A
Elastomers			
Tensile Stress (20% Strain)	2.50	MPa	DIN 53504-S2
Tensile Stress (100% Strain)	6.00	MPa	DIN 53504-S2
Tensile Stress (300% Strain)	10.0	MPa	DIN 53504-S2
Tensile Stress			DIN 53504-S2
Yield ²	32.0	MPa	
Yield	45.0	MPa	
Tensile Elongation			DIN 53504-S2
Break	600	%	
Break ²	600	%	
Tear Strength ³	70	kN/m	ISO 34-1
Compression Set			ISO 815
23°C, 72 hr	25	%	
70°C, 24 hr	45	%	
Impact			
Charpy Notched Impact Strength			ISO 179/1
-30°C	No Break		
23°C	No Break		
Hardness			
Shore Hardness			DIN 7619-1
Shore A, 3 sec	87		
Shore D, 3 sec	36		

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	80 to 90	°C

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The information presented on this datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to ensure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, points are validated with the material supplier.



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Injection	Nominal	Value	Unit
Drying Time	2.0 to 3.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40	°C	
Rear Temperature	205 to 215	°C	
Middle Temperature	210 to 225	°C	
Front Temperature	215 to 225	°C	
Nozzle Temperature	220 to 230	°C	
Processing (Melt) Temp	215 to 225	°C	
Mold Temperature	20 to 40	°C	
Injection Rate	Slow		
Back Pressure	5.00 to 15.0	MPa	
Screw L/D Ratio	18.0:1.0 to 22.0:1.0		
Screw Compression Ratio	2.0:1.0 to 3.0:1.0		
Extrusion	Nominal	Value	Unit
Drying Temperature	80 to 90	°C	
Drying Time	2.0 to 3.0	hr	
Suggested Max Moisture	0.020	%	
Cylinder Zone 1 Temp.	155 to 175	°C	
Cylinder Zone 2 Temp.	165 to 185	°C	
Cylinder Zone 3 Temp.	175 to 195	°C	
Cylinder Zone 4 Temp.	185 to 205	°C	
Adapter Temperature	190 to 210	°C	
Die Temperature	185 to 205	°C	

Notes

¹ Typical properties: these are not to be construed as specifications.

² after storage in water at 80°C for 42 days

³ Method Bb, Angle (Nicked)



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