Elastollan® 1180 A

Thermoplastic Polyurethane Elastomer (Polyether)

BASF Polyurethanes GmbH

Technical Data

Product Description

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

Typical applications
Cable jackets, plugs and terminations, spiral tubing, Films, ski-boot shells, ear tags, technical mouldings like mining screens, railway pads, seals.

General

Features	• Hydrolysis Resistant	• Low Temperature Flexibility	• Microbe Resistant
Uses	• Cable Jacketing • Film • Mining Applications	• Molded Ear Tags • Plugs • Seals	• Sporting Goods • Tubing
Processing Method	• Blow Molding	• Extrusion	• Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.11	g/cm³	ISO 1183/A
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Abrasion Loss	30.0	mm³	ISO 4649-A
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			DIN 53504
20% Strain	2.00	MPa	
100% Strain	4.50	MPa	
300% Strain	8.00	MPa	
Tensile Stress			DIN 53504
Yield	45.0	MPa	
Yield [4]	30.0	MPa	
Tensile Elongation			DIN 53504
Break	650	%	
Break [4]	700	%	
Tear Strength [5]	55.0	kN/m	ISO 34-1
Compression Set			ISO 815
23°C, 72 hr	25	%	
70°C, 24 hr	45	%	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-30°C	No Break		
23°C	No Break		
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore A, 3 sec)	80		ISO 7619
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating	HB		UL 94

Injection	Nominal Value	Unit
Processing (Melt) Temp	170 to 240	°C
Mold Temperature	20 to 70	°C

Extrusion	Nominal Value	Unit
Melt Temperature	160 to 220	°C