

Technical Data Sheet

Alcryn 1080 BK

Melt Processable Rubber
LyondellBasell Industries
Engineering Plastics

General				
Features	• Fast Molding Cycle • General Purpose • Good Weather Resistance	• High Heat Resistance • Noise Damping • Oil Resistant	• Ozone Resistant • Recyclable Material • Vibration Damping	
Uses	• Cable Jacketing • Coating Applications • Fabric Coatings • Flexible Grips • Gaskets	• General Purpose • Handles • Hose • Overmolding • Profiles	• Seals • Tubing • Weatherstripping • Wire & Cable Applications	
RoHS Compliance	• RoHS Compliant			
Appearance	• Black			
Forms	• Pellets			
Processing Method	• Blow Molding • Calendering	• Extrusion • Vacuum Forming		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.25	1.25 g/cm ³	ASTM D471
--	1.25 g/cm ³	1.25 g/cm ³	ISO 2781

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 G, Cs-17 Wheel	5.00 mg	5.00 mg	
Torsion Modulus ¹			ASTM D1043
-4°F (-20°C), 74.8 Mil (1.90 Mm)	2886 psi	19.9 MPa	
75°F (24°C), 74.8 Mil (1.90 Mm)	421 psi	2.90 MPa	

Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Set ²	8 %	8 %	ASTM D412
Tensile Stress			
100% Strain, 0.0748 In (1.90 Mm) ¹	1150 psi	7.90 MPa	ASTM D412 ISO 37
100% Strain, 257°F (125°C), 0.0748 In (1.90 Mm) ³	1360 psi	9.40 MPa	ASTM D573 ISO 188
Tensile Strength			
Yield, 0.0748 In (1.90 Mm) ¹	1900 psi	13.1 MPa	ASTM D412 ISO 37
Yield, 257°F (125°C), 0.0748 In (1.90 Mm) ³	2030 psi	14.0 MPa	ASTM D573 ISO 188
Tensile Elongation			
Break, 0.0748 In (1.90 Mm) ¹	210 %	210 %	ASTM D412 ISO 37
Break, 257°F (125°C), 0.0748 In (1.90 Mm) ³	190 %	190 %	ASTM D573 ISO 188
Tear Strength ^{4, 1} (0.0748 In (1.90 Mm))	140 lbf/in	24.5 kN/m	ASTM D624
Compression Set ⁵			ASTM D395B ISO 815
75°F (24°C), 22 Hr	15 %	15 %	
212°F (100°C), 22 Hr	55 %	55 %	
Clash-Berg Modulus (-22°F (-30°C))	10000 psi	68.9 MPa	ASTM D1043

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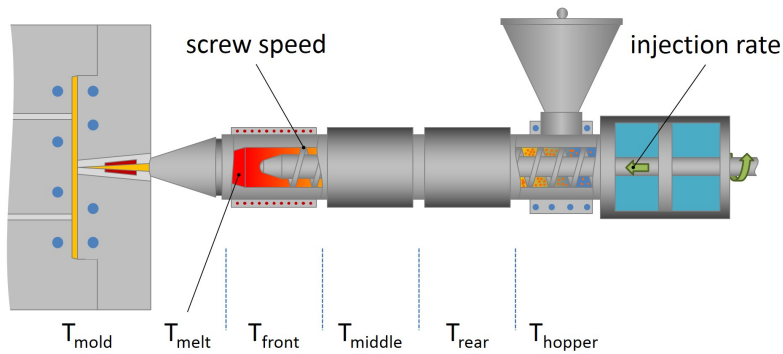
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Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240 ISO 868
Shore A, 0.0748 In (1.90 Mm), Compression Molded	78	78	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	-47.2 °F	-44.0 °C	ASTM D746 ISO 812
Aging	Nominal Value (English)	Nominal Value (SI)	Test Method
Change in Durometer Hardness in Air ²			ASTM D573 ISO 188
Shore A, 257°F (125°C), 168 Hr	-1.0	-1.0	
Change in Volume ²			ASTM D471 ISO 1817
81°F (27°C), 168 Hr, In Reference Fuel B	29 %	29 %	
212°F (100°C), 168 Hr, In Astm #1 Oil	-8.0 %	-8.0 %	
212°F (100°C), 168 Hr, In Irm 903 Oil	23 %	23 %	
212°F (100°C), 168 Hr, In Water	10 %	10 %	
Fill Analysis	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Viscosity (374°F (190°C), 300 Sec ⁻¹)	800 Pa·s	800 Pa·s	ASTM D3835

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Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	351 °F	177 °C

Notes

- ¹ Compression Molded
- ² 1.9 mm, Compression Molded
- ³ 7 days, Compression Molded
- ⁴ Die C
- ⁵ Type I pellets, 12.7 mm diameter, plied up from 1.9 mm slabs

Notes

These are typical property values not to be construed as specification limits.