

Technical Data Sheet



Alcryn 1080 BK

Melt Processable Rubber
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
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
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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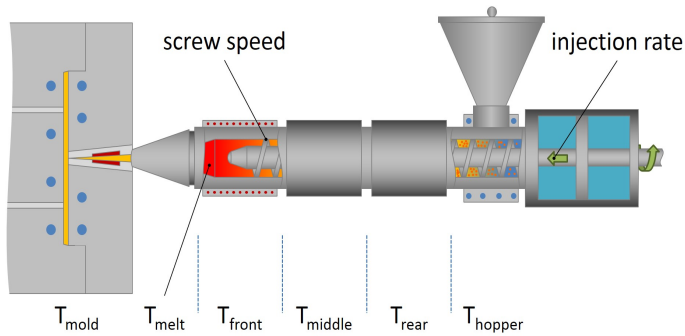
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240 ISO 868
Shore A, 0.0748 in (1.90 mm), Compression Molded	78	78	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	-47.2 °F	-44.0 °C	ASTM D746 ISO 812
Aging	Nominal Value (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 ^A -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

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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.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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