Technical Data Sheet

Alcryn 4680 BK

Melt Processable Rubber
LyondellBasell Industries
Engineering Plastics

General			
Additive	• UV Stabilizer		
Features	• Good Weather Resistance • High Heat Resistance • Medium Flow	• Noise Damping • Oil Resistant • Ozone Resistant	• UV Resistant • Vibration Damping
Uses	• Cable Jacketing • Engineering Parts • Fabrics • Gaskets	• Handles • Hose • Seals • Sheet	• Tubing • Weatherstripping • Wire Jacketing
Agency Ratings	• EU 2002/96/EC (WEEE)		
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Blow Molding • Calendering	• Compression Molding • Extrusion	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.27	1.27 g/cm³	ASTM D792
--	1.27 g/cm³	1.27 g/cm³	ISO 1183
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus			ASTM D638 ISO 527-1
0.0750 In (1.91 Mm), Compression Molded	860 psi	5.93 MPa	
Tensile Strength			ASTM D638 ISO 527-2
Yield, 0.0750 In (1.91 Mm), Compression Molded	1570 psi	10.8 MPa	
Tensile Elongation			ASTM D638 ISO 527-2
Break, 0.0750 In (1.91 Mm), Compression Molded	380 %	380 %	
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 G, Cs-17 Wheel	6.00 mg	6.00 mg	
Elastomers	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Set	12 %	12 %	ASTM D412
Tear Strength [1] (75°f (24°c))	300 lbf/in	52.5 kN/m	ASTM D624
Compression Set			ASTM D395B ISO 815
75°f (24°c), 22 Hr	24 %	24 %	
212°f (100°c), 22 Hr	75 %	75 %	
Clash-Berg Modulus (34°f (1°c))	10000 psi	68.9 MPa	ASTM D1043
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 0.0750 In (1.91 Mm), Compression Molded	79	79	
IRHD Hardness	79	79	ISO 48
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Brittleness Temperature	-75.0 °F	-59.4 °C	ASTM D746 ISO 974

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Aging	Nominal Value (English)	Nominal Value (SI)	Test Method
Change in Shore Hardness in Air			ISO 188
257°f (125°c), 168 Hr	76	76	
Change in Ultimate Elongation			ASTM D471
257°f (125°c), 168 Hr	380 %	380 %	
Change in Durometer Hardness			ASTM D471
257°f (125°c), 168 Hr	76	76	
Change in Volume			ASTM D471
75°f (24°c), 168 Hr, In Reference Fuel B	22 %	22 %	
212°f (100°c), 168 Hr, In Astm #1 Oil	-9.0 %	-9.0 %	
212°f (100°c), 168 Hr, In Astm #3 Oil	24 %	24 %	
212°f (100°c), 168 Hr, In Water	10 %	10 %	

Additional Information

The value listed as Density-Specific Gravity, ASTM D792, was tested in accordance with ASTM D471.
Torsion Modulus, ASTM D1043, 75°F: 600psi
Aging Tensile Strength, ASTM D573, 7 days, 257°F: 1600psi
Torsion Modulus, ASTM D1043, -4°F: 10000psi
Aging 100% Modulus, ASTM D573, 7 days, 257 °F: 1100psi
Aging Elongation At Break, ASTM D573 and ISO 188: 380%
Fluid Resistance 7 Days in water, ISO 1817, at 212 °F: 10%
Fluid Resistance 7 Days in ASTM Oil no. 1, ISO 1817, at 212 °F: -9%
Fluid Resistance 7 Days in IRM 903 Oil no. 3, ISO 1817, at 212 °F: 24%
Fluid Resistance 7 Days in ASTM Ref. Fuel no. B, ISO 1817, at 75 °F: 22%
Rheological Viscosity, ASTM D3835, 1/300s at 374°F: 780Pa-s

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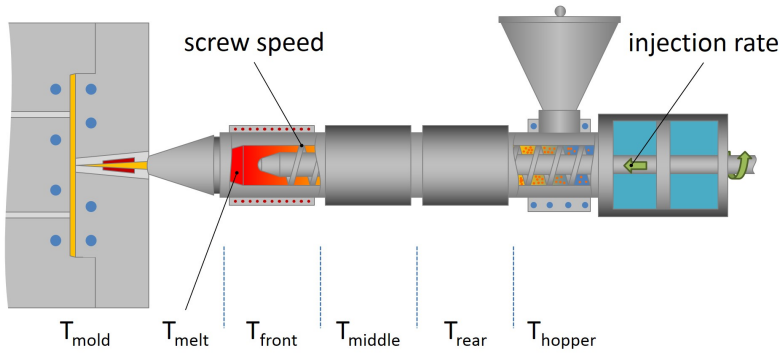

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	350 °F	177 °C

Notes

[1] Die C

Notes

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