

Technical Data Sheet

# Alcryn 4680 NC

Melt Processable Rubber  
LyondellBasell Industries  
Engineering Plastics

General			
Additive	<ul style="list-style-type: none"> <li>• UV Stabilizer</li> </ul>		
Features	<ul style="list-style-type: none"> <li>• Good Weather Resistance</li> <li>• High Heat Resistance</li> <li>• Medium Flow</li> </ul>	<ul style="list-style-type: none"> <li>• Noise Damping</li> <li>• Oil Resistant</li> <li>• Ozone Resistant</li> </ul>	<ul style="list-style-type: none"> <li>• UV Resistant</li> <li>• Vibration Damping</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Cable Jacketing</li> <li>• Engineering Parts</li> <li>• Fabrics</li> <li>• Gaskets</li> </ul>	<ul style="list-style-type: none"> <li>• Handles</li> <li>• Hose</li> <li>• Seals</li> <li>• Sheet</li> </ul>	<ul style="list-style-type: none"> <li>• Tubing</li> <li>• Weatherstripping</li> <li>• Wire Jacketing</li> </ul>
Agency Ratings	<ul style="list-style-type: none"> <li>• EU 2002/96/EC (WEEE)</li> </ul>		
RoHS Compliance	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> </ul>		
Appearance	<ul style="list-style-type: none"> <li>• Natural Color</li> </ul>		
Forms	<ul style="list-style-type: none"> <li>• Pellets</li> </ul>		
Processing Method	<ul style="list-style-type: none"> <li>• Blow Molding</li> <li>• Calendering</li> </ul>	<ul style="list-style-type: none"> <li>• Compression Molding</li> <li>• Extrusion</li> </ul>	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.27	1.27 g/cm <sup>3</sup>	ASTM D792
--	1.27 g/cm <sup>3</sup>	1.27 g/cm <sup>3</sup>	ISO 1183

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			ASTM D638
0.0750 In (1.91 Mm), Compression Molded	740 psi	5.10 MPa	ISO 527-1
Tensile Strength			ASTM D638
Yield, 0.0750 In (1.91 Mm), Compression Molded	1600 psi	11.0 MPa	ISO 527-2
Tensile Elongation			ASTM D638
Break, 0.0750 In (1.91 Mm), Compression Molded	360 %	360 %	ISO 527-2
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 G, Cs-17 Wheel	9.00 mg	9.00 mg	

Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Set	12 %	12 %	ASTM D412
Tear Strength <sup>1</sup> (75°F (24°C))	310 lbf/in	54.3 kN/m	ASTM D624
Compression Set			ASTM D395B
75°F (24°C), 22 Hr	25 %	25 %	ISO 815
212°F (100°C), 22 Hr	74 %	74 %	
Clash-Berg Modulus (39°F (4°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	78	78	
IRHD Hardness	78	78	ISO 48

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	-65.0 °F	-53.9 °C	ASTM D746 ISO 974

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Aging	Nominal Value (English)	Nominal Value (SI)	Test Method
Change in Shore Hardness in Air 257°F (125°C), 168 Hr	71	71	ISO 188
Change in Ultimate Elongation 257°F (125°C), 168 Hr	350 %	350 %	ASTM D471
Change in Durometer Hardness 257°F (125°C), 168 Hr	71	71	ASTM D471
Change in Volume			ASTM D471
75°F (24°C), 168 Hr, In Reference Fuel B	26 %	26 %	
212°F (100°C), 168 Hr, In Astm #1 Oil	-10 %	-10 %	
212°F (100°C), 168 Hr, In Astm #3 Oil	26 %	26 %	
212°F (100°C), 168 Hr, In Water	11 %	11 %	

### 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: 1680psi

Torsion Modulus, ASTM D1043, -4°F: 10000psi

Aging 100% Modulus, ASTM D573, 7 days, 257 °F: 1260psi

Aging Elongation At Break, ASTM D573 and ISO 188: 350%

Fluid Resistance 7 Days in water, ISO 1817, at 212 °F: 11%

Fluid Resistance 7 Days in ASTM Oil no. 1, ISO 1817, at 212 °F: -10%

Fluid Resistance 7 Days in IRM 903 Oil no. 3, ISO 1817, at 212 °F: 26%

Fluid Resistance 7 Days in ASTM Ref. Fuel no. B, ISO 1817, at 75 °F: 26%

Rheological Viscosity, ASTM D3835, 1/300s at 374°F: 870Pa-s

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

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