

Technical Data Sheet

**Alcryn 1070BK EXT BLK**



Melt Processable Rubber

**Product Description**

Alcryn 1070BK EXT BLK is a Melt Processable Rubber material and is typically used in Blow Molding, Calendering, Extrusion, Vacuum Forming applications. Features include: Fast Molding Cycle, Good Weather Resistance, High Heat Resistance, Noise Damping, Oil Resistant, Ozone Resistant, Recyclable Material, and Vibration Damping.

<b>Processing Method</b>	Blow Molding; Calendering; Extrusion; Vacuum Forming
<b>Attribute</b>	Fast Molding Cycle; Good Weather Resistance; High Heat Resistance; Noise Damping; Oil Resistant; Ozone Resistant; Recyclable Material; Vibration Damping
<b>Forms</b>	Pellets
<b>Appearance</b>	Black
<b>Application</b>	Cable Jacketing; Coating Applications; Fabric Coatings; Flexible Grips; Gaskets; General Purpose; Handles; Hose; Overmolding; Profiles; Seals; Tubing; Weatherstripping; Wire & Cable

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Density	1.23	g/cm <sup>3</sup>	ISO 2781
Density - Specific Gravity	1.23	g/cm <sup>3</sup>	ASTM D471
Change in Volume			
(in Reference Fuel B, 27 °C, 168 hr)	30	%	ASTM D471
(in Reference Fuel B, 27 °C, 168 hr)	30	%	ISO 1817
(in ASTM #1 Oil, 100 °C, 168 hr)	-9.0	%	ISO 1817
(in ASTM #1 Oil, 100 °C, 168 hr)	-9.0	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	25	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	25	%	ISO 1817
(in Water, 100 °C, 168 hr)	8.0	%	ASTM D471
(in Water, 100 °C, 168 hr)	8.0	%	ISO 1817
Melt Viscosity, (190 °C, 300 sec <sup>-1</sup> )	740	Pa·s	ASTM D3835
<b>Mechanical</b>			
Tensile Stress at 100%			
(1.90 mm)	5.30	MPa	ASTM D412
(1.90 mm)	5.30	MPa	ISO 37
(125 °C, 1.90 mm)	5.30	MPa	ISO 188
(125 °C, 1.90 mm)	5.30	MPa	ASTM D573

<b>Torsion Modulus</b>			
(24 °C, 1.9 mm)	2.2	MPa	ASTM D1043
Compression Molded			
(-20 °C, 1.9 mm)	14.3	MPa	ASTM D1043
Compression Molded			
<b>Tensile Set</b>	10	%	ASTM D412
<b>Clash-Berg Modulus, (-34 °C)</b>	68.9	MPa	ASTM D1043
<b>Tensile Strength at Yield</b>			
(1.90 mm)	12.4	MPa	ASTM D412
(125 °C, 1.90 mm)	13.1	MPa	ASTM D573
<b>Tensile Stress at Yield</b>			
(1.90 mm)	12.4	MPa	ISO 37
(125 °C, 1.90 mm)	13.1	MPa	ISO 188
<b>Tensile Strain at Break</b>			
(1.90 mm)	270	%	ISO 37
(125 °C, 1.90 mm)	240	%	ISO 188
<b>Tensile Elongation at Break</b>			
(125 °C, 1.90 mm)	240	%	ASTM D573
(1.90 mm)	270	%	ASTM D412
<b>Tear Strength, (Die C, 1.90 mm)</b>	28.0	kN/m	ASTM D624
<b>Impact</b>			
Ductile/Brittle Transition Temperature	-53	°C	ISO 812
<b>Hardness</b>			
Change in Shore Hardness in Air, (Shore A, 125 °C, 168 hr)	-2.0		ISO 188
Shore Hardness, (Shore A, 1.90 mm, Compression Molded)	72		ISO 868
Change in Durometer Hardness in Air, (Shore A, 125 °C, 168 hr)	-2.0		ASTM D573
Durometer Hardness, (Shore A, 1.90 mm, Compression Molded)	72		ASTM D2240
<b>Additional Information</b>			
<b>Compression Set</b>			
(24 °C, 22 hr, Method B)	15	%	ASTM D395
(100 °C, 22 hr, Method B)	55	%	ASTM D395
(24 °C, 22 hr)	15	%	ISO 815
(100 °C, 22 hr)	55	%	ISO 815
Taber Abrasion Resistance, (CS-17 Wheel, 1000 g, 1000 Cycles)	7.00	mg	ASTM D1044

<b>Injection Parameters</b>	<b>Nominal Value</b>	<b>Units</b>
Processing (Melt) Temp	177	°C