Technical Data Sheet

Alcryn 2080NC INJ NAT

Melt Processable Rubber

Product Description

Alcryn 2080NC INJ NAT is a Melt Processable Rubber material and is typically used in Blow Molding, Extrusion, Injection Molding, Vacuum Forming applications. Features include: Fast Molding Cycle, High Flow, High Heat Resistance, Noise Damping, Oil Resistant, Ozone Resistant, Recyclable Material, and Vibration Damping.

Processing Method	Blow Molding; Extrusion; Injection Molding; Vacuum Forming
Attribute	Fast Molding Cycle; High Flow; High Heat Resistance; Noise Damping; Oil Resistant; Ozone Resistant; Recyclable Material; Vibration Damping
Forms	Pellets
Appearance	Natural Color
Application	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
Physical			
Density	1.26	g/cm³	ISO 2781
Density - Specific Gravity	1.26	g/cm³	ASTM D471
Change in Volume			
(in Reference Fuel B, 27 °C, 168 hr)	29	%	ASTM D471
(in Reference Fuel B, 27 °C, 168 hr)	29	%	ISO 1817
(in ASTM #1 Oil, 100 °C, 168 hr)	-14	%	ISO 1817
(in ASTM #1 Oil, 100 °C, 168 hr)	-14	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	23	%	ASTM D471
(in IRM 903 Oil, 100 °C, 168 hr)	23	%	ISO 1817
(in Water, 100 °C, 168 hr)	8.0	%	ISO 1817
(in Water, 100 °C, 168 hr)	8.0	%	ASTM D471
Melt Viscosity, (190 °C, 300 sec^-1)	640	Pa·s	ASTM D3835
Mechanical			
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)	4.40	MPa	ISO 188
(125 °C, 1.90 mm)	4.40	MPa	ASTM D573

Torsion Modulus			
(24 °C, 1.9 mm)	2.9	MPa	ASTM D1043
Compression Molded			
(-20 °C, 1.9 mm)	14.3	MPa	ASTM D1043
Compression Molded			
Tensile Set	11	%	ASTM D412
Clash-Berg Modulus, (-32 °C)	68.9	MPa	ASTM D1043
Tensile Strength at Yield			
(1.90 mm)	9.90	MPa	ASTM D412
(125 °C, 1.90 mm)	5.50	MPa	ASTM D573
Tensile Stress at Yield			
(1.90 mm)	9.90	MPa	ISO 37
(125 °C, 1.90 mm)	5.50	MPa	ISO 188
Tensile Strain at Break			
(1.90 mm)	400	%	ISO 37
(125 °C, 1.90 mm)	140	%	ISO 188
Tensile Elongation at Break			
(125 °C, 1.90 mm)	140	%	ASTM D573
(1.90 mm)	400	%	ASTM D412
Tear Strength, (Die C, 1.90 mm)	33.3	kN/m	ASTM D624
Impact			
Ductile/Brittle Transition Temperature	-76	°C	ISO 812
Hardness			
Change in Shore Hardness in Air, (Shore A, 125 °C, 168 hr)	-5.0		ISO 188
Shore Hardness, (Shore A, 1.90 mm, Compression Molded)	76		ISO 868
Change in Durometer Hardness in Air, (Shore A, 125 °C, 168 hr)	-5.0		ASTM D573
Durometer Hardness, (Shore A, 1.90 mm, Compression Molded)	76		ASTM D2240
Additional Information			
Compression Set			
(24 °C, 22 hr, Method B)	17	%	ASTM D395
(100 °C, 22 hr, Method B)	61	%	ASTM D395
(24 °C, 22 hr)	17	%	ISO 815
(100 °C, 22 hr)	61	%	ISO 815
Taber Abrasion Resistance, (CS-17 Wheel, 1000 g, 1000 Cycles)	10.0	mg	ASTM D1044

Injection Parameters	Nominal Value	Units
Processing (Melt) Temp	177	°C