

Technical Data Sheet

Alcryn ALC - 3055NCNAT



Melt Processable Rubber

Product Description

Alcryn 3055NC EXT NAT is a Melt Processable Rubber material and is typically used in Blow Molding, Calendering, Extrusion, Vacuum Forming applications. Features include: Fast Molding Cycle, High Heat Resistance, Noise Damping, Oil Resistant, Ozone Resistant, Recyclable Material, and Vibration Damping.

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|--------------------------|---|
| Processing Method | Blow Molding; Calendering; Extrusion; Vacuum Forming |
| Attribute | Fast Molding Cycle; 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 | 1.18 | g/cm ³ | ISO 2781 |
| Density - Specific Gravity | 1.18 | g/cm ³ | 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) | -12 | % | ISO 1817 |
| (in ASTM #1 Oil, 100 °C, 168 hr) | -12 | % | ASTM D471 |
| (in IRM 903 Oil, 100 °C, 168 hr) | 25 | % | ISO 1817 |
| (in IRM 903 Oil, 100 °C, 168 hr) | 25 | % | ASTM D471 |
| (in Water, 100 °C, 168 hr) | 15 | % | ISO 1817 |
| (in Water, 100 °C, 168 hr) | 15 | % | ASTM D471 |
| Melt Viscosity, (190 °C, 300 sec ⁻¹) | 465 | Pa·s | ASTM D3835 |
| Mechanical | | | |
| Tensile Stress at 100% | | | |
| (1.90 mm) | 2.80 | MPa | ISO 37 |
| (1.90 mm) | 2.80 | MPa | ASTM D412 |
| (125 °C, 1.90 mm) | 2.50 | MPa | ISO 188 |
| (125 °C, 1.90 mm) | 2.50 | MPa | ASTM D573 |

| | | | |
|--|-------|------|------------|
| Torsion Modulus | | | |
| (24 °C, 1.9 mm) | 1.3 | MPa | ASTM D1043 |
| Compression Molded | | | |
| (-20 °C, 1.9 mm) | 17.2 | MPa | ASTM D1043 |
| Compression Molded | | | |
| Tensile Set | 6 | % | ASTM D412 |
| Clash-Berg Modulus, (-28 °C) | 68.9 | MPa | ASTM D1043 |
| Tensile Strength at Yield | | | |
| (1.90 mm) | 8.20 | MPa | ASTM D412 |
| (125 °C, 1.90 mm) | 8.70 | MPa | ASTM D573 |
| Tensile Stress at Yield | | | |
| (1.90 mm) | 8.20 | MPa | ISO 37 |
| (125 °C, 1.90 mm) | 8.70 | MPa | ISO 188 |
| Tensile Strain at Break | | | |
| (1.90 mm) | 440 | % | ISO 37 |
| (125 °C, 1.90 mm) | 450 | % | ISO 188 |
| Tensile Elongation at Break | | | |
| (125 °C, 1.90 mm) | 450 | % | ASTM D573 |
| (1.90 mm) | 440 | % | ASTM D412 |
| Tear Strength, (Die C, 1.90 mm) | 28.9 | kN/m | ASTM D624 |
| Impact | | | |
| Ductile/Brittle Transition Temperature | -54 | °C | ISO 812 |
| Hardness | | | |
| Change in Shore Hardness in Air, (Shore A, 125 °C, 168 hr) | 1.0 | | ISO 188 |
| Shore Hardness, (Shore A, 1.90 mm, Compression Molded) | 57 | | ISO 868 |
| Change in Durometer Hardness in Air, (Shore A, 125 °C, 168 hr) | 1.0 | | ASTM D573 |
| Durometer Hardness, (Shore A, 1.90 mm, Compression Molded) | 57 | | ASTM D2240 |
| Additional Information | | | |
| Compression Set | | | |
| (24 °C, 22 hr, Method B) | 17 | % | ASTM D395 |
| (100 °C, 22 hr, Method B) | 65 | % | ASTM D395 |
| (24 °C, 22 hr) | 17 | % | ISO 815 |
| (100 °C, 22 hr) | 65 | % | ISO 815 |
| Taber Abrasion Resistance, (CS-17 Wheel, 1000 g, 1000 Cycles) | <1.00 | mg | ASTM D1044 |
| Extrusion Parameters | | | |
| Melt Temperature | 177 | °C | |