HK:+852-69575415 China GuangDong:+13538586433 ShangHai:+18816996168

**Technical Data Sheet**

# Alcryn® 4670 BK

Melt Processable Rubber
Engineering Plastics

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

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | | | |
| -- | 1.25 | 1.25 g/cm³ | ASTM D792 |
| -- | 1.25 g/cm³ | 1.25 g/cm³ | ISO 1183 |
| **Mechanical** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Tensile Modulus | | | ASTM D638<br>ISO 527-2 |
| 0.0750 in (1.91 mm), Compression Molded | 580 psi | 4.00 MPa | |
| Tensile Strength | | | ASTM D638<br>ISO 527-2 |
| Yield, 0.0750 in (1.91 mm), Compression Molded | 1310 psi | 9.03 MPa | |
| Tensile Elongation | | | ASTM D638<br>ISO 527-2 |
| Break, 0.0750 in (1.91 mm), Compression Molded | 420 % | 420 % | |
| Taber Abrasion Resistance | | | ASTM D1044 |
| 1000 Cycles, 1000 g, CS-17 Wheel | 2.00 mg | 2.00 mg | |
| **Elastomers** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Tensile Set | 9 % | 9 % | ASTM D412 |
| Tear Strength [1] (75°F (24°C)) | 220 lbf/in | 38.5 kN/m | ASTM D624 |
| Compression Set | | | ASTM D395B<br>ISO 815 |
| 75°F (24°C), 22 hr | 20 % | 20 % | |
| 212°F (100°C), 22 hr | 75 % | 75 % | |
| Clash-Berg Modulus (-4°F (-20°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 | 70 | 70 | |
| IRHD Hardness | 70 | 70 | ISO 48 |
| **Thermal** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Brittleness Temperature | -80.0 °F | -62.2 °C | ASTM D746<br>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 | 64 | 64 | |
| Change in Ultimate Elongation | | | ASTM D471 |
| 257°F (125°C), 168 hr | 420 % | 420 % | |
| Change in Durometer Hardness | | | ASTM D471 |
| 257°F (125°C), 168 hr | 64 | 64 | |
| Change in Volume | | | ASTM D471 |
| 75°F (24°C), 168 hr, in Reference Fuel B | 14 % | 14 % | |
| 212°F (100°C), 168 hr, in ASTM #1 Oil | -15 % | -15 % | |
| 212°F (100°C), 168 hr, in ASTM #3 Oil | 17 % | 17 % | |
| 212°F (100°C), 168 hr, in Water | 12 % | 12 % | |

**Additional Information**

The value listed as Density-Specific Gravity, ASTM D792, was tested in accordance with ASTM D471.
Torsion Modulus, ASTM D1043, 75°F: 350psi
Aging Tensile Strength, ASTM D573, 7 days, 257°F: 1320psi
Torsion Modulus, ASTM D1043, -4°F: 4000psi
Aging 100% Modulus, ASTM D573, 7 days, 257 °F: 700psi
Aging Elongation At Break, ASTM D573 and ISO 188: 420%
Fluid Resistance 7 Days in water, ISO 1817, at 212 °F: 12%
Fluid Resistance 7 Days in ASTM Oil no. 1, ISO 1817, at 212 °F: -15%
Fluid Resistance 7 Days in IRM 903 Oil no. 3, ISO 1817, at 212 °F: 17%
Fluid Resistance 7 Days in ASTM Ref. Fuel no. B, ISO 1817, at 75 °F: 14%
Rheological Viscosity, ASTM D3835, 1/300s at 374°F: 510Pa-s

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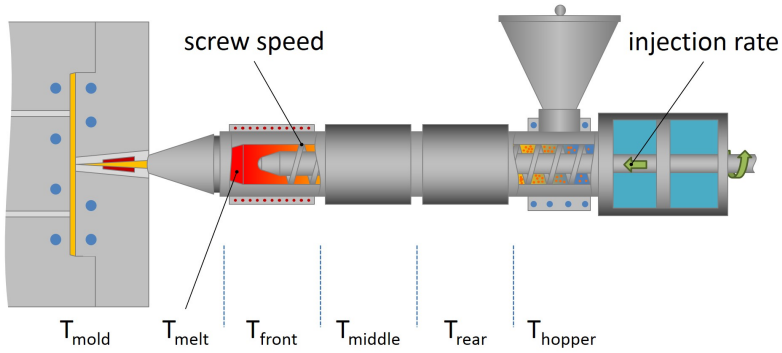


| Injection | Nominal Value (English) | Nominal Value (SI) |
|---|---|---|
| Processing (Melt) Temp | 350 °F | 177 °C |

**Notes**

[1] Die C

**Notes**

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