

## Technical Data Sheet

*Alcryn* 1060BK EXT BLK

Melt Processable Rubber

**Product Description**

*Alcryn* 1060BK 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  | 1.19          | g/cm <sup>3</sup> | ISO 2781    |
| Density - Specific Gravity                       | 1.19          | 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)                 | -10           | %                 | ISO 1817    |
| (in ASTM #1 Oil, 100 °C, 168 hr)                 | -10           | %                 | ASTM D471   |
| (in IRM 903 Oil, 100 °C, 168 hr)                 | 27            | %                 | ASTM D471   |
| (in IRM 903 Oil, 100 °C, 168 hr)                 | 27            | %                 | ISO 1817    |
| (in Water, 100 °C, 168 hr)                       | 12            | %                 | ASTM D471   |
| (in Water, 100 °C, 168 hr)                       | 12            | %                 | ISO 1817    |
| Melt Viscosity, (190 °C, 300 sec <sup>-1</sup> ) | 545           | Pa·s              | ASTM D3835  |
| <b>Mechanical</b>                                |               |                   |             |
| Tensile Stress at 100%                           |               |                   |             |
| (1.90 mm)  | 3.90          | MPa               | ISO 37      |
| (1.90 mm)  | 3.90          | MPa               | ASTM D412   |
| (125 °C, 1.90 mm)                                | 3.90          | MPa               | ISO 188     |
| (125 °C, 1.90 mm)                                | 3.90          | MPa               | ASTM D573   |

|  |      |      |            |
|--|------|------|------------|
| <b>Torsion Modulus</b>   |      |      |            |
| (24 °C, 1.9 mm)  | 1.9  | MPa  | ASTM D1043 |
| Compression Molded   |      |      |            |
| (-20 °C, 1.9 mm)   | 7.5  | MPa  | ASTM D1043 |
| Compression Molded   |      |      |            |
| <b>Tensile Set</b>   | 8    | %    | ASTM D412  |
| <b>Clash-Berg Modulus, (-38 °C)</b>                            | 68.9 | MPa  | ASTM D1043 |
| <b>Tensile Strength at Yield</b>                               |      |      |            |
| (1.90 mm)  | 9.60 | MPa  | ASTM D412  |
| (125 °C, 1.90 mm)  | 10.6 | MPa  | ASTM D573  |
| <b>Tensile Stress at Yield</b>                                 |      |      |            |
| (1.90 mm)  | 9.60 | MPa  | ISO 37     |
| (125 °C, 1.90 mm)  | 10.6 | MPa  | ISO 188    |
| <b>Tensile Strain at Break</b>                                 |      |      |            |
| (1.90 mm)  | 300  | %    | ISO 37     |
| (125 °C, 1.90 mm)  | 330  | %    | ISO 188    |
| <b>Tensile Elongation at Break</b>                             |      |      |            |
| (125 °C, 1.90 mm)  | 330  | %    | ASTM D573  |
| (1.90 mm)  | 300  | %    | ASTM D412  |
| <b>Tear Strength, (Die C, 1.90 mm)</b>                         | 26.3 | kN/m | ASTM D624  |
| <b>Impact</b>  |      |      |            |
| Ductile/Brittle Transition Temperature                         | -51  | °C   | ASTM D746  |
| <b>Hardness</b>  |      |      |            |
| 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)         | 62   |      | 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)     | 62   |      | 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           |