# Evoprene™ 094

## Styrene Butadiene Styrene Block Copolymer

## AlphaGary

IDES | Prospector

### Product Description

The Evoprene™ Standard series is based mostly on SBS (styrene-butadiene -styrene) block copolymer rather than the hydrogenated SEBS type. This is a lower cost polymerso these grades are generally available at reduced cost compared with the Evoprene™ G or GC grades. SBS is the block copolymer form of SBR rubber and the properties generally mirror those of its vulcanisable cousin. Compounds produced from SBS block copolymer are suitable for a wide range of applications including extruded door, window and furniture seals and rubbing strips, mats, bump stops, grommets, coat hanger pads, toy components etc. Compounds remain flexible to very low temperatures (-60°C, - 75°F) and can be used at up to +55 - 60°C (130 - 140°F). A wide range of hardnesses is available from the mid 20s Shore A to about 60 Shore D. Many compounds are formulated for good ozone resistance but whilst grades pigmented black can be used for external application non black grades will quickly harden and discolour outside.

### General

| | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Europe | • North America | |
| Features | • Block Copolymer<br>• Bondability<br>• Fast Molding Cycle<br>• Good Colorability | • Good Processability<br>• Good Surface Finish<br>• High Clarity<br>• Ozone Resistant | • Recyclable Material<br>• Resilient |
| Uses | • Grommets | • Seals | • Toys |
| RoHS Compliance | • Contact Manufacturer | | |
| Appearance | • Opaque | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Injection Molding | |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.10 | g/cm³ | ISO 2782 |
| Molding Shrinkage | 0.050 to 1.2 | % | |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Stress (100% Strain) | 2.10 | MPa | ISO 37 |
| Tensile Stress (Yield) | 5.10 | MPa | ISO 37 |
| Tensile Elongation (Break) | 610 | % | ISO 37 |
| Tear Strength [2] | 30 | kN/m | ISO 34-1 |
| Compression Set (22°C, 72.0 hr) | 28 | % | ISO 815 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Shore Hardness (Shore A) | 61 | | ISO 868 |
| **Additional Information** | **Nominal Value** | **Unit** | **Test Method** |
| M-S Flow | 3.33 | MPa | Internal Method |
| Ozone Resistance (100 pphm, 20%str) | pass | | Internal Method |

| Injection | Nominal Value | Unit |
|---|---|---|
| Suggested Max Regrind | 20 | % |
| Rear Temperature | 160 to 180 | °C |
| Middle Temperature | 160 to 180 | °C |
| Front Temperature | 160 to 180 | °C |
| Nozzle Temperature | 170 to 190 | °C |
| Processing (Melt) Temp | 220 | °C |
| Mold Temperature | 15.0 to 30.0 | °C |
| Injection Rate | Fast | |
| Vent Depth | 0.020 to 0.050 | mm |

### Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Method Ba, Angle (Unnicked)





**Revision History**
Document Created: Thursday, June 24, 2010
Added to Prospector: December, 2003
Last Updated: 3/12/2008