

## Chevron Phillips K-Resin® KR03 Styrene-Butadiene Copolymer, Sheet Grade

Category : Polymer , Thermoplastic , Styrene-Butadiene , Styrene-Butadiene Copolymer, SBC

### Material Notes:

**Styrene-Butadiene Copolymer Customer Benefits:** This SBC is easily processed by injection molding or sheet extrusion and molded parts give excellent part detail on fast production cycles. It can be tinted or colored in a variety of transparent and opaque shades. Molded parts have excellent clarity, good toughness, excellent rigidity, high surface gloss. KR03NW is the no was for of KR03 to facilitate printing. **Applications:** Molded applications include molded boxes and containers, toys, displays, medical devices, overcaps, and novelties. Formed applications include portion packages and blister packaging. **Processing Recommendations:** Injection Molding: Melt Temperature: 232°C maximum. Mold temperature, 49°C maximum. Screw plasticizing type injection molder more desirable than plunger type molder. Generally no need to dry resin. Sheet Extrusion: Melt Temperature, 218°C maximum. High shear stress and restrictive type screws tend to degrade the melt. Generally no need to dry resin. **Specification Data:** FDA Regulation 21 CFR 177.1640. Suitable for food contact. EEC Directive 90/128/EEC and all its amendments. USP Class VI-50. UL 94HB. Data provided by Chevron Phillips Chemical Company LP.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Chevron-Phillips-K-Resin-KR03-Styrene-Butadiene-Copolymer-Sheet-Grade.php](http://www.lookpolymers.com/polymer_Chevron-Phillips-K-Resin-KR03-Styrene-Butadiene-Copolymer-Sheet-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.01 g/cc	0.0365 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.090 %	0.090 %	ASTM D570
Melt Flow	7.5 g/10 min @Load 5.00 kg, Temperature 200 °C	7.5 g/10 min @Load 11.0 lb, Temperature 392 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65	65	ASTM D2240
Tensile Strength, Yield	26.0 MPa	3770 psi	Type 1 @ 2 in/min; ASTM D638
Elongation at Break	160 %	160 %	Type 1 @ 2 in/min; ASTM D638
Flexural Yield Strength	34.0 MPa	4930 psi	ASTM D790
Flexural Modulus	1.413 GPa	204.9 ksi	ASTM D790
Izod Impact, Notched	0.410 J/cm @Thickness 3.17 mm	0.768 ft-lb/in @Thickness 0.125 in	ASTM D256
Impact Test	29.7 J @Thickness 3.17 mm	21.9 ft-lb @Thickness 0.125 in	Instrumented Total Energy; @ 150 in/sec impact rate; ASTM D3763

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa	73.0 °C	163 °F	

(264 psi) Thermal Properties	Metric	English	ASTM D648 Comments
Vicat Softening Point	87.0 °C	189 °F	ASTM D1525
Flammability, UL94	HB	HB	

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	ASTM D1003

Processing Properties	Metric	English	Comments
Processing Temperature	<= 232 °C	<= 450 °F	injection molding

## Contact Songhan Plastic Technology Co.,Ltd.

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