

KR01

K-Resin[®] Styrene-Butadiene Copolymers (SBC)

Customer Benefits

- Excellent Clarity
- Good Stiffness
- Good Toughness
- High Surface Gloss
- Warpage Resistance

Typical Applications

- Molded Boxes with Integral Hinges
- Medical Devices
- Displays
- Toys

Nominal Physical Properties ⁽¹⁾	Condition	English	SI	Method
Specific Gravity	-	1.01 g/cc	1.01 g/cc	ASTM D792
Melt Flow Rate	200°C/5Kg	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Tensile Yield Strength ⁽²⁾	--	4940 psi	34 MPa	ASTM D638
Tensile Elongation ⁽²⁾	2.0 in/min	25 %	25 %	ASTM D638
Flexural Modulus ⁽³⁾	1.0 in/min	246,000 psi	1700 Mpa	ASTM D790
Flexural Strength ⁽³⁾	1.0 in/min	8040 psi	55 Mpa	ASTM D790
Deflection Temperature Under Load (DTUL)	264 psi (1.8 MPa)	147 °F	64 °C	ASTM D648
Instrumented Impact Total Energy ⁽⁴⁾	73 °F	3.1 in-lbs	0.4 J	ASTM D3763
Hardness, Shore D	-	64	64	ASTM D2240
Vicat Softening Point	-	194 °F	90 °C	ASTM D1525
Gardner Gloss (Mold Temperature 100°F)	60°	148%	148%	ASTM D2457
Light Transmission	-	93 %	93 %	ASTM D1003

1. The nominal properties herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes. Values are rounded.

2. Type 1 @ 2 in/min (50 mm/min)

3. 0.125 in (3.2 mm) specimen @ 0.5 in/sec (1.27 cm/min)

4. 0.125 in (3.2 mm) specimen @ 150 in/sec (381 cm/sec) impact rate

MEETS THESE IMPORTANT REQUIREMENTS:

- K-Resin[®] SBC grade KR01, as shipped by Chevron Phillips Chemical Company LP, meets the specifications of the United States FDA Food Packaging Regulation 21 CFR 177.1640 (polystyrene and rubber modified polystyrene). By virtue of this compliance, K-Resin[®] KR01 may be used as a component of articles for use in contact with food. There are no regulatory food type or temperature restrictions on this resin, as defined under 21 CFR 176.170 (c).
- EEC Directive 2002/72/EEC and all its amendments.
- USP Class VI-50
- UL 94HB
- K-Resin[®] SBC grade KR01 is produced in an ISO 9001:2000 certified plant.