

For more information and technical assistance contact:

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# KR03

## K-Resin® Styrene-Butadiene Copolymers (SBC)

### Customer Benefits

- Excellent Clarity
- Good Stiffness
- Good Formability
- Good Toughness
- High Surface Gloss

### Typical Applications

- Bottles
- Molded Boxes and Containers
- Medical Devices
- Portion Packages
- Blister Packaging

Nominal Physical Properties <sup>(1)</sup>	Condition	English	SI	Method
Specific Gravity	-	1.01 g/cc	1.01 g/cc	ASTM D792
Melt Flow Rate	200°C/5Kg	7.5 g/10 min	7.5 g/10 min	ASTM D1238
Tensile Yield Strength <sup>(2)</sup>	--	3860 psi	27 MPa	ASTM D638
Tensile Elongation <sup>(2)</sup>	2.0 in/min	236 %	236 %	ASTM D638
Flexural Modulus <sup>(3)</sup>	1.0 in/min	230,000 psi	1590 Mpa	ASTM D790
Flexural Strength <sup>(3)</sup>	1.0 in/min	5290 psi	36.5 Mpa	ASTM D790
Deflection Temperature Under Load (DTUL)	264 psi (1.8 MPa)	142 °F	61.1 °C	ASTM D648
Instrumented Impact Total Energy <sup>(4)</sup>	73 °F	290 in·lbs	32.8 J	ASTM D3763
Notched Izod Impact <sup>(5)</sup>	73 °F	0.37 ft·lb/in	19.8 J/m	ASTM D256
Hardness, Shore D	-	61.2	61.2	ASTM D2240
Vicat Softening Point	-	177 °F	80.6 °C	ASTM D1525
Gardner Gloss (Mold Temperature 100°F)	60°	148%	148%	ASTM D2457
Light Transmission	-	91.4%	91.4%	ASTM D1003
Moisture Absorption	24 h	0.09%	0.09%	ASTM D570

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
5. 0.125 in (3.2 mm) specimen

### MEETS THESE IMPORTANT REQUIREMENTS:

- K-Resin® SBC grade KR03, 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® KR03 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 KR03 is produced in an ISO 9001:2000 certified plant.

MSDS #248900

Revision Date September, 2005

Another quality product from



Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Chevron Phillips Chemical Company LP does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.