

# K-Resin KR01

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

K-Resin® KR01 process very well in injection molding, providing good cycle times and design flexibility. Applications range from containers and packaging with living hinges to medical applications, toys, displays, overcaps and hangers. INEOS Styrolution has several grades of K-Resin® SBC tailored for your injection molded needs.

### FEATURES

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

### APPLICATIONS

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

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	8.0
<b>Mechanical Properties</b>			
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	19
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	4845
Tensile Strain at Break, 23 °C	ASTM D 638	%	30
Flexural Strength, 23 °C	ASTM D 790	psi	7827
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	260,874
Hardness, Shore D	ASTM D 2240	-	69
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	194
DTUL @ 264 psi - Annealed	ASTM D 648	°F	148
<b>Optical Properties</b>			
Light Transmission at 550 nm	ASTM D 1003	%	93
Gardner Gloss (mold temperature 100°F)	ASTM D 2457	%	164
<b>Other Properties</b>			

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Property, Test Condition	Standard	Unit	Values
Density	ASTM D 792	-	1.01

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.

[Tensile Yield Strength/Tensile Elongation @ Break] = Type 1 @ 2 in/min (50 mm/min)

[Flexural Modulus/Flexural Yield Strength] = 0.125 in (3.2 mm) specimen @ 0.5 in/sec (1.27 cm/min)

[Instrumented Impact Total Energy] = 0.125 in (3.2 mm) specimen @ 150 in/sec (381 cm/sec) impact rate

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