

# K-Resin KR03

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

K-Resin® KR03 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 Formability
- Good Toughness
- High Surface Gloss
- KR03NW is the no-wax (NW) form of KR03 to facilitate printing

### APPLICATIONS

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

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ISO 1133	g/10 min	7.5
<b>Mechanical Properties</b>			
Instrumented Dart Impact (total energy)		J	40
Tensile Stress at Yield, 23 °C	ISO 527	MPa	26
Tensile Strain at Break, 23 °C	ISO 527	%	230
Flexural Strength, 23 °C	ISO 178	MPa	37
Flexural Modulus, 23 °C	ISO 178	MPa	1,795
Hardness, Shore D	ISO 868	-	63
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°C	85
DTUL @ 264 psi - Annealed		°C	62
<b>Optical Properties</b>			
Light Transmission at 550 nm	ASTM D 1003	%	92
Gardner Gloss (mold temperature 100°F)	ASTM D2457	%	162
<b>Other Properties</b>			

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Property, Test Condition	Standard	Unit	Values
Density	ISO 1183	kg/m <sup>3</sup>	1010
Moisture Absorption	ASTM D570	%	0.09

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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