

## K-Resin KR38

Styrene Butadiene Copolymer (SBC)

TECHNICAL  
DATASHEET

## DESCRIPTION

K-Resin® KR38 alone or in blends, can be extruded into sheet and thermoformed on conventional equipment at high output rates. The favorable economics of K-Resin SBC, along with high productivity, have made possible tough clear disposable drinking cups, lids and other packaging applications. INEOS Styrolution has several grades of K-Resin SBC tailored for your sheet extrusion needs.

## FEATURES

- Combines Clarity and Toughness
- Good Formability
- High Surface Gloss
- Good Toughness and Stiffness

## APPLICATIONS

- Thermoformed Blister Packs
- Portion Packages
- Cups and Lids

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm <sup>3</sup> /10 min	10
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m <sup>2</sup>	50
Tensile Stress at Yield, 23 °C	ISO 527	MPa	15
Tensile Strain at Yield, 23 °C	ISO 527	%	2
Tensile Strain at Break, 23 °C	ISO 527	%	180
Tensile Modulus	ISO 527	MPa	900
Flexural Strength, 23 °C	ISO 178	MPa	20
Flexural Modulus, 23 °C	ISO 178	MPa	1000
Hardness, Shore D	ISO 868	-	55
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	50
Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	75
Heat Deflection Temperature, B (0.45 MPa)	ISO 75	°C	73
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	55
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	60 - 90

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Property, Test Condition	Standard	Unit	Values
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ISO 489	-	1.56
Light Transmission at 550 nm	ASTM D 1003	%	92
Haze	ASTM D 1003	%	< 0.9
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1010
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07
<b>Processing</b>			
Linear Mold Shrinkage	ISO 294-4	%	0.3 - 1

Typical values for uncolored products

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