

K-Resin KR20

Styrene Butadiene Copolymer (SBC)

TECHNICAL
DATASHEET

DESCRIPTION

K-Resin® KR20 a clear styrene-butadiene block copolymer (SBC) with an exceptional high toughness. K-Resin® KR20 is mainly used in compounding of styrenic polymers to enhance the impact properties of such blends.

FEATURES

- Improved toughness for styrenic polymers and styrenic polymer blends

APPLICATIONS

- Impact modification of styrenic polymer and styrenic polymer blends

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	6.0
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	50
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	NB
Tensile Stress at Yield, 23 °C	ISO 527	MPa	10
Tensile Strain at Yield, 23 °C	ISO 527	%	2.0
Tensile Strain at Break, 23 °C	ISO 527	%	400
Tensile Modulus	ISO 527	MPa	700
Flexural Strength, 23 °C	ISO 178	MPa	12
Flexural Modulus, 23 °C	ISO 178	MPa	500
Hardness, Shore D	ISO 868	-	47
Thermal Properties			
Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	57
Heat Deflection Temperature, B (0.45 MPa)	ISO 75	°C	60
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	50
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	60-90
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.56

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Property, Test Condition	Standard	Unit	Values
Light Transmission at 550 nm	ASTM D 1003	%	91
Haze	ASTM D 1003	%	2.0
Other Properties			
Density	ISO 1183	kg/m ³	1010
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.3-1.0

Typical values for uncolored products

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