

# K-Resin KR52

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

K-Resin® KR52 makes a clear, stiff, very tough, high gloss film suitable for applications such as candy twist wrap, shrink sleeves and overwrap. K-Resin® KR52 is designed for use in the uniaxial oriented film process for shrink sleeves.

### FEATURES

- Excellent Optical Properties
- Good Stiffness
- Excellent Printability
- Up to 80% Shrinkage at 100°C

### APPLICATIONS

- Shrink Sleeve Labels
- Multi-layer Films
- Tamper Evident Bands
- Roll-Fed Labels

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	9.0
<b>Mechanical Properties</b>			
Elongation at Break (MD)	ASTM D 882	%	260
Elongation at Break (TD)	ASTM D 882	%	80
Flexural Strength, 23 °C	ASTM D 790	psi	-
Puncture, Energy at Peak Force	ASTM D 3763	in-lb	27
Tensile Yield Strength (MD)	ASTM D 882	psi	4,400
Tensile Yield Strength (TD)	ASTM D 882	psi	6,500
Secant Modulus, 1% MD	ASTM D 882	psi	160,000
Secant Modulus, 1% TD	ASTM D 882	psi	232,000
Dart Drop, 26 in (66 mm)	ASTM D1709	g	580
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	142
<b>Optical Properties</b>			
Light Transmission at 550 nm	ASTM D 1003	%	-
Haze	ASTM D 1003	%	4
Gardner Gloss (mold temperature 100°F)	ASTM D 2457	%	145

# K-Resin KR52

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

Property, Test Condition	Standard	Unit	Values
<b>Other Properties</b>			
Density	ASTM D 792	-	1.01
Oxygen Transmission Rate (23 °C/0% RH)	ASTM D 3985	cc/100in <sup>2</sup> /day	210
Water Vapor Transmission Rate (WVTR) (23 °C/0% to 85% RH gradient)	ASTM F 1249-06	g/100in <sup>2</sup> /day	6

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.

Typical cast film properties with 2% impact polystyrene, 2 mil (0.05 mm) (10 mil cast film oriented/tentered 5:1 in the Transverse Direction).

[Vicat Softening Point] = Injection Molded Specimen.

### DISCLAIMER

The above information is provided in good faith. INEOS Styrolution is not responsible for any processing or compounding which may occur to product finished articles, packaging materials or their components. Further, INEOS Styrolution MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, REGARDING THE INFORMATION GIVEN OR THE PRODUCTS DESCRIBED, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, REPRESENTATIONS AND CONDITIONS, INCLUDING WITHOUT LIMITATION ALL WARRANTIES AND CONDITIONS OF QUALITY, MERCHANTABILITY AND SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Responsibility for use, storage, handling and disposal of the products described herein is that of the purchaser or end user.