

# Styrolux 3G46

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

Styrolux® 3G46 is a clear styrene-butadiene copolymer (SBC) developed specifically for sheet- and film extrusion and for thermoformed articles. Styrolux® 3G46 is designed for improved performance in blends with general-purpose polystyrene, providing parts with an excellent balance of transparency and toughness.

### FEATURES

- Outstanding clarity
- Good toughness / stiffness balance
- Medium GPPS blend capability

### APPLICATIONS

- Food and non-food packaging
- Caps and lids
- Toys
- Displays
- Medical devices
- Household products

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	11
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	0.6
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	178
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	3700
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	238
Elongation, Failure	ASTM D 638	%	220
Flexural Strength, 23 °C	ASTM D 790		3940
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	193
Hardness, Shore D	ASTM D 2240	-	75
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	190
DTUL @ 264 psi - Unannealed	ASTM D 648	°F	140
DTUL @ 66 psi - Unannealed	ASTM D 648	°F	168
Coefficient of Linear Thermal Expansion	ASTM D 696	10 <sup>-4</sup> /°F	0.72

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Property, Test Condition	Standard	Unit	Values
<b>Electrical Properties</b>			
Dielectric Constant at 106 CPS (1000000 Hz, 0,0394 in)	ASTM D 150	-	2.5
Volume Resistivity	ASTM D 257	-	>10 <sup>13</sup>
Surface Resistivity	ASTM D 257	-	>10 <sup>14</sup>
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ASTM D 542	-	1.573
Light Transmission at 550 nm	ASTM D 1003	%	91
Haze	ASTM D 1003	%	1
<b>Other Properties</b>			
Density	ASTM D 792	lb/in <sup>3</sup>	1.02
Water Absorption, Saturated at 23 °C	ASTM D 570	%	0.07
<b>Processing</b>			
Linear Mold Shrinkage	ASTM D 955	in/in	0.0065