

# Styrolux 656C

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

Styrolux® 656C is a clear styrene-butadiene copolymer (SBC) with enhanced flow properties. It is used almost exclusively for injection molding of rigid, tough parts requiring highest levels of clarity and surface gloss. Styrolux® 656C is sterilizable by gamma-rays and offers good hinge properties.

### FEATURES

- Tough and stiff grade
- Enhanced flowability
- High clarity

### APPLICATIONS

- Moulded containers and bottles
- Toys
- Displays
- Appliance housings
- Medical devices
- Garment hangers

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 200 °C/5 kg	ASTM D 1238	g/10 min	15
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	-
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	5.33
Instrumented Dart Impact (Peak force)	ASTM D 3763	in-lbs	5.33
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	4060
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	244
Elongation, Failure	ASTM D 638	%	40
Flexural Strength, 23 °C	ASTM D 790	psi	4790
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	217
Hardness, Shore D	ASTM D 2240	-	72
<b>Thermal Properties</b>			
Vicat Softening Temperature, B/1 ( 120 °C/h, 10N)	ASTM D 1525	°F	194
DTUL @ 264 psi - Unannealed	ASTM D 648	°F	152
DTUL @ 66 psi - Unannealed	ASTM D 648	°F	177

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Property, Test Condition	Standard	Unit	Values
Coefficient of Linear Thermal Expansion	ASTM D 696	10 <sup>-4</sup> /°F	0.72
<b>Electrical Properties</b>			
Dielectric Constant at 106 CPS (1000000 Hz, 0,0394 in)	ASTM D 150	-	2.5
Volume Resistivity	ASTM D 257	-	>1E13
Surface Resistivity	ASTM D 257	-	>1E14
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ASTM D 542	-	1.579
Light Transmission at 550 nm	ASTM D 1003	%	90
Haze	ASTM D 1003	%	-
<b>Other Properties</b>			
Density	ASTM D 792	-	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
Melt Temperature Range		°F	356 to 482
Mold Temperature Range		°F	86 to 122

Typical values for uncolored products

## SUPPLY FORM

Styrolux is supplied in pellet form and should be kept in its original containers in cool, dry place. Avoid direct exposure to sunlight. Styrolux® can be stored in silos at temperatures well below 45 °C.

## PRODUCT SAFETY

During processing of Styrolux® small quantities of styrene monomer may be released into the atmosphere. At styrene vapor concentrations below 20 ppm no negative effects on health are expected. In our experience, the concentration of styrene does not exceed 1 ppm in well ventilated workplaces - that is where five to eight air changes per hour are made. For safety information please refer to our Material Safety Data Sheet for this product.

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