

# Styrolux ECO S BC100

Styrene Butadiene Copolymer (SBC)

## TECHNICAL DATASHEET

### DESCRIPTION

The product line Styrolux® comprises clear styrene butadiene copolymers. The grades have in general an intrinsic toughness, are easy to process and work as modifiers and compatibilizers not only in polystyrene but in many other polymers, e.g. polyolefins. For all Styrolux® grades food contact statements are available upon request. Styrolux® ECO S BC100 is a very rigid grade designed to be blended with Styrolux® ECO T in shrink film applications. It enables high performance film extrusion, increases the stiffness of the film and improves the storage stability of film reels (reduced natural shrinkage). Styrolux ECO S BC100 is an ISCC compliant product leading to a substitution of fossil source styrene and butadiene with ISCC certified bio-attributed styrene and bio-attributed butadiene. This product exhibits a neutral to even negative carbon footprint.

### FEATURES

- Controlled shrinkability
- Well extrudable
- Rigidity
- Transparency

### APPLICATIONS

- Food contact applications
- Shrink sleeves

Property, Test Condition	Standard	Unit	Values
<b>Sustainability Properties</b>			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	116
Attributed Content of ISCC-certified Bio-Circular Sources	-	%	100
<b>Rheological Properties</b>			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm <sup>3</sup> /10 min	11
<b>Mechanical Properties</b>			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m <sup>2</sup>	1
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	14
Tensile Modulus	ISO 527	MPa	2900
Tensile Stress at Yield, 23 °C	ISO 527	MPa	45
Tensile Strain at Yield, 23 °C	ISO 527	%	2
Tensile Stress at Break, 23 °C	ISO 527	MPa	48
Tensile Strain at Break, 23 °C	ISO 527	%	3
Nominal Strain at Break, 23 °C	ISO 527	%	2.5
Flexural Modulus, 23 °C	ISO 178	MPa	3000

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Property, Test Condition	Standard	Unit	Values
Flexural Strength, 23 °C	ISO 178	MPa	67
Hardness, Shore D	ISO 868	-	67
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	64
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	59
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	62
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ISO 489	-	1.58
Haze	ASTM D 1003	%	< 2
Light Transmission at 550 nm	ASTM D 1003	%	90
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1020
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07