INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

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
Sustainability Properties			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	116
Attributed Content of ISCC-certified Bio-Circular Sources	-	%	100
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	11
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	1
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	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

Contact us:
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Property, Test Condition	Standard	Unit	Values
Flexural Strength, 23 °C	ISO 178	MPa	67
Hardness, Shore D	ISO 868	-	67
Thermal Properties			
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
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.58
Haze	ASTM D 1003	%	< 2
Light Transmission at 550 nm	ASTM D 1003	%	90
Other Properties			
Density	ISO 1183	kg/m³	1020
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07

Typical values for uncolored products
Please note that all processing data stated are only indicative and may vary depending on the individual processing complexities.
Please consult our local sales or technical representatives for details.

SUPPLY FORM

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

PRODUCT SAFETY

During processing of Styrolux® ECO 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 infor-mation please refer to our Material Safety Data Sheet for this product.

DISCLAIMER

The above mentioned data are accurate to the best of our knowledge. They are based upon reputable labs and industry standard testing methods. These are only typical values and actual product specification may deviate at industrial range. Therefore, no data in this technical data sheet shall constitute a warranty or representation regarding product features, fitness of the product for a specific purpose or application

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or its processability. INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.

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