

Styrolux® ECO S BC60
SB

INEOS Styrolution

Styrolux® ECO S BC60 comprises clear styrene butadiene copolymer. The grade has in general an intrinsic toughness, is easy to process and works as modifier and compatibilizer not only in polystyrene but in many other polymers, e.g. polyolefins. For Styrolux® ECO S BC60 food contact statements are available upon request. Styrolux® ECO S BC60 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 BC60 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11	cm ³ /10min	ISO 1133
Temperature	200	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2900	MPa	ISO 527
Yield stress	45	MPa	ISO 527
Yield strain	2	%	ISO 527
Nominal strain at break	2.5	%	ISO 527
Impact Strength (Charpy), +23°C	14	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	1	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	3000	MPa	ISO 178
Flexural strength	67	MPa	ISO 178

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	59	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	62	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	64	°C	ISO 306

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.07	%	Sim. to ISO 62
Density	1020	kg/m ³	ISO 1183

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Haze	2	%	ASTM D 1003
Light Transmittance	90	%	ASTM D 1003
Index of Refraction	1.58	-	ISO 489

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	50	°C	-
Pre-drying - Time	3 - 4	h	-
Melt temperature	180 - 250	°C	-
Mold temperature	30 - 40	°C	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Type of extrusion	blown	-	-
Melt temperature	180	°C	-
Type of extrusion	film	-	-
Melt temperature	190 - 230	°C	-

Characteristics**Processing**

Injection Molding, Film Extrusion

Features

Blending Resin, Copolymer

Styrolux® ECO S BC60

SB

INEOS Styrolution

Delivery form

Pellets

Certifications

Contains renewable resources, Food approval, ISCC Plus

Special Characteristics

Transparent

Injection Molding

As a rule, the Styrolux® granules do not have to be pre-dried. However, in the event of unfavorable storage or transportation conditions involving severe temperature fluctuations, moisture can condense on the surface of the granules and this then has to be removed in a pre-drying step. The granules should be pre-dried in a dry-air dryer for 3 to 4 hours at a temperature of about 50°C.

PROCESSING

Melt temperature, range: 180 - 250°C

Mold temperature, range: 30 - 40°C

Film Extrusion

PROCESSING

Blown film, Melt temperature: 180°C

Flat film, Melt temperature: 190 - 230°C