

Styrolux T1

Styrene Butadiene Copolymer (SBC)

TECHNICAL DATASHEET

DESCRIPTION

Styrolux® T1 is a new, clear and tough styrene-butadiene copolymer (SBC) designed specifically for high performance film extrusion and shrink film applications. Styrolux® T1 has been developed for blending with a second SBC component, Styrolux® S, which increases the stiffness of the film and improves the storage stability of film reels (reduced natural shrinkage).

FEATURES

- Excellent clarity and toughness
- High shrinkage up to 70%
- Very good shrinkage control
- Low gel content
- Reduced film stickiness

APPLICATIONS

- Blend component for Styrolux S
- Shrink sleeve applications
- Label film

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	12
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	75
Mechanical Properties			
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	> 80
Tensile Stress at Yield, 23 °C	ISO 527	MPa	25
Tensile Strain at Break, 23 °C	ISO 527	%	250
Tensile Modulus	ISO 527	MPa	1100
Hardness, Shore D	ISO 868	-	64
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	48
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	50
Heat Deflection Temperature B; (unannealed; 0.45 MPa)	ISO 75	°C	55
Electrical Properties			
Dissipation Factor (100 Hz)	IEC 62631-2-1	10 ⁻⁴	3
Volume Resistivity	IEC 62631-3-1	Ohm*m	10000000000000

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Surface Resistivity	IEC 62631-3-1	Ohm	1000000000000000
Comparative Tracking Index	IEC 60112	V	600
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.57
Light Transmission at 550 nm	ASTM D 1003	%	91
Haze	ASTM D 1003	%	1.5
Other Properties			
Density	ISO 1183	kg/m ³	1005
Water Absorption, Saturated at 23 °C	ISO 62	%	0.07
Processing			
Melt Temperature Range	ISO 294	°C	180 - 230

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 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

No adverse effects on the health of processing personnel have been observed where the products are correctly processed and the production areas are suitably ventilated. For styrene the maximum allowable workplace concentrations must be observed according to the pertaining national regulations. In Germany, the following limit values are valid TRGS 900 (Aug. 2004): styrene, MAK-value: 20 ml/m³. Experience has shown that when Styrolux is processed correctly with appropriate ventilation, the levels are far below the limits mentioned above. Inhalation of the vapors of degradation products which can arise on severe overheating of the materials or during purging out should be avoided. Further information can be found in the Styrolux safety data sheets.

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 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

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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.