

Styrolux M

Styrene Butadiene Copolymer (SBC)

**TECHNICAL
DATASHEET**

DESCRIPTION

Styrolux® M is a new, clear and rigid styrene-butadiene copolymer (SBC) designed specifically for shrink film applications. Styrolux® has been developed for blending with other SBC components like Styrolux® S, which increases the stiffness of the film and Styrolux® T1, which increases the toughness of the film. Styrolux® M is used to tailor-made the ultimate shrinkage while keeping the mechanical properties.

FEATURES

- Excellent clarity and stiffness
- Medium shrinkage (up to 60%)
- Very good shrinkage control
- Low gel content
- Reduced film stickiness

APPLICATIONS

- Blend component for Styrolux S & T1
- Shrink sleeve applications

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm ³ /10 min	12
Mechanical Properties			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m ²	3
Izod Notched Impact Strength, -20 °C	ISO 180/A	kJ/m ²	2
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	3
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	2
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m ²	14
Tensile Stress at Yield, 23 °C	ISO 527	MPa	30
Tensile Strain at Yield, 23 °C	ISO 527	%	2
Tensile Modulus	ISO 527	MPa	1700
Flexural Strength, 23 °C	ISO 178	MPa	40
Flexural Modulus, 23 °C	ISO 178	MPa	1650
Hardness, Shore D	ISO 868	-	65
Tensile Strain at Break, 23 °C	ISO 527	%	20
Thermal Properties			

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Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	60
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	62
Heat Deflection Temperature, B (0.45 MPa)	ISO 75	°C	76
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	60 - 90
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.57
Light Transmission at 550 nm	ASTM D 1003	%	90
Haze	ASTM D 1003	%	1.5
Other Properties			
Density	ISO 1183	kg/m ³	1020
Processing			
Linear Mold Shrinkage	ISO 294-4	%	0.3 - 1
Melt Temperature Range	ISO 294	°C	180 - 250
Mold Temperature Range	ISO 294	°C	30 - 50

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

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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 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.
