INEOS STYROLUTION

Styrolux 4G60

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® 4G60 is designed specifically for injection molding of parts with an excellent balance of transparency and ductility.

FEATURES

- Easy processing
- Sterilisable(ETO,NO2,Irradiation)
- Transparency

APPLICATIONS

- Food contact applications
- Medical devices
- Soft medical applications, e.g. drip chambers

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate, 200 °C/5 kg	ISO 1133	cm³/10 min	12
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	4
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	> 80
Tensile Modulus	ISO 527	MPa	900
Tensile Stress at Yield, 23 °C	ISO 527	MPa	14
Tensile Strain at Yield, 23 °C	ISO 527	%	1.5
Tensile Strain at Break, 23 °C	ISO 527	%	200
Hardness, Shore D	ISO 868	-	50
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	45
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	50
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	64
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	60 - 90
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.57

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Property, Test Condition	Standard	Unit	Values
Haze	ASTM D 1003	%	< 2
Light Transmission at 550 nm	ASTM D 1003	%	90
Other Properties			
Density	ISO 1183	kg/m³	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 delivered in the form of cylindrical or spherical pellets. The bulk density of the pellets is from 0.55 to 0.65 g/cm³. In dry areas with normal temperature control, Styrolux pellets can be stored for relatively long periods of time without any change in mechanical properties. Avoid direct exposure to sunlight. Under poor storage conditions, Styrolux may absorb low amounts of moisture, but this can be removed easily by drying.

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 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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