

DESCRIPTION

Lustran® 446 resin is a high-impact grade of ABS (Acrylonitrile Butadiene Styrene). This automotive injection molding grade provides a good balance of mechanical properties and impact strength for substrate applications.

FEATURES

- SAE J1685: ABS 0111
- High Impact Strength
- Good Balance of Properties

APPLICATIONS

- Non appearance structural components for truck, bus and automotive

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Flow Rate, 230 °C/3.8 kg	ISO 1133	g/10 min	4
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	13
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	kJ/m ²	30
Izod Notched Impact Strength, -40 °C (-40 °F)	ASTM D 256	kJ/m ²	5.1
Tensile Stress at Yield, 23 °C	ISO 527	MPa	44
Flexural Modulus, 23 °C	ISO 178	MPa	2540
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	97
Processing			
Drying Temperature	-	°C	80

Typical values for uncolored products

SUPPLY FORM

Lustran® ABS (Acrylonitrile Butadiene Styrene) resins are available in bulk railcar, bulk truckload and 726kg box quantities.

REGULATORY COMPLIANCE

Please refer to Styrolution web site or contact Styrolution Technical Service for further information.

PROCESSING

A reciprocating screw injection molding machine is preferred. A general-purpose screw with a 2.5:1 compression ratio is suggested. A minimum L/D ratio of 20:1 will ensure melt homogeneity. For best part quality, use the lower range of the recommended melt temperature with minimum barrel residence time. To avoid excessive residence time in the barrel, volume and weight of the shot should be balanced against barrel capacity and injection stroke. A shot weight-to-machine capacity ratio of 0.5-0.75 is recommended. A mold temperature of 110°-150°F (45°-65°C) is recommended for development of maximum gloss and strength, with the hotter end of this range preferred.

PRODUCT SAFETY

Safety Data Sheets and product labels provide information concerning the health and safety precautions that must be observed when handling the Styrolution products mentioned in this publication. No adverse effects on the health of processing personnel have been observed if the products are correctly processed and the production areas are suitably ventilated. For styrene, acrylonitrile, alpha-methyl styrene, maleic anhydride and 1, 3-butadiene, the maximum allowable workplace concentrations must be observed according to current local and federal regulations. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. This information is available in safety data sheets and on product labels. If there are questions or concerns, consult your Styrolution representative or contact the Product Safety and Regulatory Affairs Department at Styrolution.

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