

Lustran 1152

Acrylonitrile Butadiene Styrene (ABS)

TECHNICAL DATASHEET

DESCRIPTION

Lustran® 1152 resin is a very high-impact extrusion grade of ABS (acrylonitrile butadiene styrene) with a balance of properties not offered by other grades of ABS. It offers superior toughness, particularly for low-temperature applications, and good thermoformability.

FEATURES

- Very high impact strength
- Superior toughness, especially in low temperature applications
- Ease of coloring
- Good thermoformability
- UL 94 HB rated

APPLICATIONS

- Vehicle instrument panels
- Luggage shells
- Agricultural equipment
- Construction equipment

Property, Test Condition	Standard	Unit	Values
Mechanical Properties			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	9.2
Izod Notched Impact Strength, -18 °C (0 °F)	ASTM D 256	ft-lb/in	6.5
Izod Notched Impact Strength, -40 °C (-40 °F)	ASTM D 256	ft-lb/in	4.2
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	444
Instrumented Dart Impact (Peak force)	ASTM D 3763	in-lbs	264
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	4500
Tensile Modulus	ASTM D 638	psi x 10 ³	220
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 ³	260
Flexural Stress at 5% Deflection	ASTM D 790	psi	7000
Hardness, Rockwell	ASTM D 785	R scale	93
Thermal Properties			
DTUL @ 264 psi - Unannealed	ASTM D 648	°F	180
DTUL @ 66 psi - Unannealed	ASTM D 648	°F	193
DTUL @ 264 psi - Annealed	ASTM D 648	°F	195
DTUL @ 66 psi - Annealed	ASTM D 648	°F	206
Coefficient of Linear Thermal Expansion	ASTM D 696	10 ⁻⁴ /°F	0.58

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Property, Test Condition	Standard	Unit	Values
Optical Properties			
Specular Gloss, 60 °	ASTM D 523		80
Other Properties			
Density	ASTM D 792	lb/in ³	1.03
Processing			
Linear Mold Shrinkage	ASTM D 955	in/in	0.004 - 0.006
Drying Temperature	-	°F	175
Drying Time	-	h	2 - 4

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

To obtain an optimum balance of sheet gloss and mechanical properties, the extruder profile should be set to deliver polymer at a melt temperature between 420° and 480°F (215° and 249°C). A barrel temperature of 420°-465°F (215°-240°C) is recommended.

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.

DISCLAIMER

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The aforementioned data shall constitute the agreed contractual quality of the product sold by INEOS Styrolution at the time of passing of risk. INEOS Styrolution does not make any further warranty, representation or guarantee of any kind, express or implied, regarding the suitability of the product for any particular purpose or application and 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.
