

# Lustran 552

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

### DESCRIPTION

Lustran® 552 resin is a medium-gloss, medium-impact extrusion grade of ABS (acrylonitrile butadiene styrene). It provides a good balance between rigidity and impact strength, and has a stiff melt flow suitable for extrusion and thermoforming.

### FEATURES

- Medium gloss
- Medium impact strength
- Good balance between rigidity and impact strength
- UL 94 HB rated

### APPLICATIONS

- Profile extrusions
- Sheet substrate coextrusion

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Flow Rate, 220 °C/10 kg	ASTM D 1238	g/10 min	6
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C (73 °F)	ASTM D 256	ft-lb/in	4.9
Izod Notched Impact Strength, -18 °C (0 °F)	ASTM D 256	ft-lb/in	2.4
Izod Notched Impact Strength, -30 °C (-22 °F)	ASTM D 256	ft-lb/in	1.9
Instrumented Dart Impact (total energy)	ASTM D 3763	in-lbs	384
Instrumented Dart Impact (Peak force)	ASTM D 3763	in-lbs	264
Tensile Stress at Yield, 23 °C	ASTM D 638	psi	5200
Tensile Modulus	ASTM D 638	psi x 10 <sup>3</sup>	290
Flexural Modulus, 23 °C	ASTM D 790	psi x 10 <sup>3</sup>	290
Flexural Stress at 5% Deflection	ASTM D 790	psi	86000
Hardness, Rockwell	ASTM D 785	R scale	103
<b>Thermal Properties</b>			
DTUL @ 264 psi - Unannealed	ASTM D 648	°F	190
DTUL @ 66 psi - Unannealed	ASTM D 648	°F	200
Coefficient of Linear Thermal Expansion	ASTM D 696	10 <sup>-4</sup> /°F	0.46
<b>Optical Properties</b>			

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Property, Test Condition	Standard	Unit	Values
Specular Gloss, 60 °	ASTM D 523		25 - 40
<b>Other Properties</b>			
Density	ASTM D 792	lb/in <sup>3</sup>	1.06
<b>Processing</b>			
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 polymers at a melt temperature between 420° and 465°F (215° and 240°C).

### 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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