# Lustran® ABS 1152

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

## Message:

Lustran ABS 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. It is easy to color with ABS color concentrates.
Lustran ABS 1152 resin is used in extrusion applications where super toughness is a prime consideration. Typical applications include vehicle instrument panels, luggage shells, agricultural equipment, and construction equipment. It is also used as a substrate under other specialty grade, such as Lustran ABS 556 low gloss resin and Centrex® weatherable polymers. As with any product, use of Lustran ABS 1152 resin in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

| General Information | |
|---|---|
| UL YellowCard | E44741-235628 |
| Features | Low Temperature Flexibility<br>Impact resistance, high<br>Good toughness |
| Uses | Architectural application field<br>Agricultural application<br>Leather case<br>Car dashboard |
| Agency Ratings | EC 1907/2006 (REACH) |
| Appearance | Available colors |
| Forms | Particle |
| Processing Method | Extrusion<br>Thermoforming |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Specific Gravity | 1.03 | g/cm³ | ASTM D792 |
| Specific Volume | 0.970 | cm³/g | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/10.0 kg) | 7.3 | g/10 min | ASTM D1238 |
| Water Absorption [1] (23°C, 24 hr) | 0.40 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 93 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | | | ASTM D638 |
| -18°C | 2210 | MPa | ASTM D638 |
| 23°C | 1520 | MPa | ASTM D638 |
| 71°C | 1240 | MPa | ASTM D638 |

| | | | |
|---|---|---|---|
| Tensile Strength | | | ASTM D638 |
| Yield, -18°C | 40.7 | MPa | ASTM D638 |
| Yield, 23°C | 31.0 | MPa | ASTM D638 |
| Yield, 71°C | 19.3 | MPa | ASTM D638 |
| Flexural Modulus | | | ASTM D790 |
| -40°C | 2000 | MPa | ASTM D790 |
| 23°C | 1790 | MPa | ASTM D790 |
| 71°C | 1380 | MPa | ASTM D790 |
| Flexural Strength | | | ASTM D790 |
| Yield, -40°C | 80.7 | MPa | ASTM D790 |
| Yield, 23°C | 48.3 | MPa | ASTM D790 |
| Yield, 71°C | 32.4 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | ASTM D256 |
| -40°C, 3.18 mm | 220 | J/m | ASTM D256 |
| -18°C, 3.18 mm | 350 | J/m | ASTM D256 |
| 23°C, 3.18 mm | 490 | J/m | ASTM D256 |
| Instrumented Dart Impact [2] | | | ASTM D3763 |
| -40°C, Peak Energy [3] | 31.2 | J | ASTM D3763 |
| -40°C, Total Energy [4] | 35.3 | J | ASTM D3763 |
| -18°C, Peak Energy [5] | 33.9 | J | ASTM D3763 |
| -18°C, Total Energy [6] | 47.5 | J | ASTM D3763 |
| 23°C, Peak Energy [7] | 29.8 | J | ASTM D3763 |
| 23°C, Total Energy [8] | 50.2 | J | ASTM D3763 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 89.4 | °C | ASTM D648 |
| 0.45 MPa, annealed | 96.7 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 82.2 | °C | ASTM D648 |
| 1.8 MPa, annealed | 90.6 | °C | ASTM D648 |
| CLTE - Flow | 1.0E-4 | cm/cm/°C | ASTM D696 |
| RTI Elec (1.50 mm) | 60.0 | °C | UL 746 |
| RTI Imp (1.50 mm) | 60.0 | °C | UL 746 |
| RTI (1.50 mm) | 60.0 | °C | UL 746 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Burning Rate [9] (3.18 mm) | 36 | mm/min | ASTM D635 |
| Flame Rating (1.50 mm) | HB | | UL 94 |
| **Optical** | **Nominal Value** | | **Test Method** |
| Gardner Gloss (60 °, extruded sheet) | 80 | | ASTM D523 |
| **Extrusion** | **Nominal Value** | **Unit** | |
| Drying Temperature | 82.2 - 93.3 | °C | |
| Drying Time | 3.0 - 4.0 | hr | |

| | | |
|---|---|---|
| Suggested Max Moisture | < 0.030 | % |
| Cylinder Zone 1 Temp. | 216 - 241 | °C |
| Cylinder Zone 2 Temp. | 216 - 241 | °C |
| Cylinder Zone 3 Temp. | 216 - 241 | °C |
| Cylinder Zone 4 Temp. | 216 - 241 | °C |
| Cylinder Zone 5 Temp. | 216 - 241 | °C |
| Melt Temperature | 216 - 249 | °C |
| Die Temperature | 210 - 241 | °C |
| Take-Off Roll | 62.8 - 104 | °C |

| Extrusion instructions |
|---|
| Max Regrind Allowed: 40% |

| NOTE | |
|---|---|
| 1. | Injection Molded specimen |
| 2. | 0.5 in dart, 3 in clamp |
| 3. | 3.40 m/sec |
| 4. | 3.40 m/sec |
| 5. | 2.32 m/sec |
| 6. | 3.40 m/sec |
| 7. | 3.40 m/sec |
| 8. | 3.40 m/sec |
| 9. | Injection Molded specimen |



## Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

WECHAT