# Lustran® ABS LK197

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

## Message:

Lustran ABS LK197 resin is a high-gloss, medium-impact extrusion grade of ABS (Acrylonitrile Butadiene Styrene). It provides a superior balance between rigidity and impact strength, as well as excellent melt strength for good thermoformability. It is easy to color with ABS color concentrates.
Lustran ABS LK197 resin is used for applications that require high gloss and higher rigidity, such as bathtubs, sinks, and shower surrounds for recreational vehicles, and interior liners for ice chests and picnic coolers. As with any product, use of Lustran ABS LK197 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 | E44741-235639 | | |
| Features | Rigidity, high<br>Highlight<br>Good melt strength<br>Good coloring<br>Medium impact resistance | | |
| Uses | Lining<br>Architectural application field<br>Sporting goods<br>Bathroom accessories | | |
| Agency Ratings | EC 1907/2006 (REACH) | | |
| Forms | Particle | | |
| Processing Method | Extrusion | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.06 | g/cm³ | ASTM D792 |
| Specific Volume | 0.940 | cm³/g | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (230°C/10.0 kg) | 9.2 | 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) | 113 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | | | ASTM D638 |
| -18°C | 2550 | MPa | ASTM D638 |
| 23°C | 2280 | MPa | ASTM D638 |
| 71°C | 1520 | MPa | ASTM D638 |
| Tensile Strength | | | ASTM D638 |
| Yield, -18°C | 59.3 | MPa | ASTM D638 |
| Yield, 23°C | 40.0 | MPa | ASTM D638 |

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|---|---|---|---|
| Yield, 71°C | 22.1 | MPa | ASTM D638 |
| Flexural Modulus | | | ASTM D790 |
| -40°C | 2760 | MPa | ASTM D790 |
| 23°C | 2480 | MPa | ASTM D790 |
| 71°C | 1930 | MPa | ASTM D790 |
| Flexural Strength | | | ASTM D790 |
| Yield, -40°C | 114 | MPa | ASTM D790 |
| Yield, 23°C | 63.4 | MPa | ASTM D790 |
| Yield, 71°C | 49.6 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | ASTM D256 |
| -40°C, 3.18 mm | 91 | J/m | ASTM D256 |
| -18°C, 3.18 mm | 130 | J/m | ASTM D256 |
| 23°C, 3.18 mm | 240 | J/m | ASTM D256 |
| Instrumented Dart Impact | | | ASTM D3763 |
| -40°C, Peak Energy | 10.8 | J | ASTM D3763 |
| -40°C, Total Energy | 13.6 | J | ASTM D3763 |
| -18°C, Peak Energy | 19.0 | J | ASTM D3763 |
| -18°C, Total Energy | 24.4 | J | ASTM D3763 |
| 23°C, Peak Energy | 21.7 | J | ASTM D3763 |
| 23°C, Total Energy | 29.8 | J | ASTM D3763 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 92.8 | °C | ASTM D648 |
| 0.45 MPa, annealed | 101 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 85.0 | °C | ASTM D648 |
| 1.8 MPa, annealed | 93.9 | °C | ASTM D648 |
| CLTE - Flow | 9.0E-5 | cm/cm/°C | ASTM D696 |
| RTI Elec (1.47 mm) | 60.0 | °C | UL 746 |
| RTI Imp (1.47 mm) | 60.0 | °C | UL 746 |
| RTI (1.47 mm) | 60.0 | °C | UL 746 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Burning Rate [2] (3.18 mm) | 36 | mm/min | SAE J1685 |
| Flame Rating (1.47 mm) | HB | | UL 94 |
| **Optical** | **Nominal Value** | | **Test Method** |
| Gardner Gloss (60 °, extruded sheet) | 90 | | 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 | |

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|---|---|---|
| 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 |
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| Compression Ratio: 2.5: to 2.7:1Pump Ratio: 1.5 to 2.0Max Regrind Allowed: 40% |

| NOTE | |
|---|---|
| 1. | Injection Molded specimen |
| 2. | Injection Molded specimen |



## Recommended distributors for this material

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