# Lustran® ABS 446

Acrylonitrile Butadiene Styrene

INEOS ABS (USA)

## Message:

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. The resin is available in natural and black colors only.
Lustran 446 ABS resin is used in applications requiring impact and abuse resistance. Typical uses include various non-appearance interior structural components for automotive and truck-and-bus applications. As with any product, use of Lustran 446 ABS resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

| General Information | | | |
|---|---|---|---|
| Features | Impact resistance, high | | |
| Uses | Application in Automobile Field<br>Car interior parts | | |
| Agency Ratings | EC 1907/2006 (REACH) | | |
| Appearance | Black<br>Natural color | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.05 | g/cm³ | ASTM D792 |
| Specific Volume | 0.950 | cm³/g | ASTM D792 |
| Melt Mass-Flow Rate (MFR) | | | ASTM D1238 |
| 220°C/10.0 kg | 13 | g/10 min | ASTM D1238 |
| 230°C/3.8 kg | 4.0 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.40 - 0.60 | % | ASTM D955 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 2480 | MPa | ASTM D638 |
| Tensile Strength | | | |
| Yield | 41.4 | MPa | ASTM D638 |
| Yield | 44.0 | MPa | ISO 527-2 |
| Flexural Modulus | | | |
| -- | 2520 | MPa | ASTM D790 |
| -- | 2540 | MPa | ISO 178 |
| Flexural Strength (Yield) | 68.9 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | |
| 23°C, 3.18 mm | 360 | J/m | ASTM D256 |
| -40°C [1] | 11 | kJ/m² | ISO 180/1A |

| | | | |
|---|---|---|---|
| 23°C [2] | 30 | kJ/m² | ISO 180/1A |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, unannealed, 3.18mm | 90.0 | °C | ASTM D648 |
| 1.8 MPa, unannealed, 3.18mm | 76.7 | °C | ASTM D648 |
| Vicat Softening Temperature | | | |
| -- | 107 | °C | ASTM D1525 [3] |
| -- | 97.0 | °C | ISO 306/B50 |
| CLTE - Flow (-30 to 30°C) | 8.8E-5 | cm/cm/°C | ASTM D696 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Burning Rate [4] | 30 | mm/min | SAE J369 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | | | |
| A | 82.2 - 87.8 | °C | |
| B | 71.1 - 76.7 | °C | |
| Drying Time | | | |
| A | 2.0 | hr | |
| B | 4.0 | hr | |
| Suggested Max Moisture | < 0.10 | % | |
| Suggested Shot Size | 50 - 75 | % | |
| Suggested Max Regrind | 20 | % | |
| Rear Temperature | 235 - 249 | °C | |
| Middle Temperature | 241 - 254 | °C | |
| Front Temperature | 246 - 260 | °C | |
| Nozzle Temperature | 246 - 260 | °C | |
| Processing (Melt) Temp | 246 - 266 | °C | |
| Mold Temperature | 43.3 - 65.6 | °C | |
| Injection Pressure | 68.9 - 110 | MPa | |
| Injection Rate | Fast | | |
| Back Pressure | 0.345 - 0.689 | MPa | |
| Clamp Tonnage | 2.8 - 5.5 | kN/cm² | |
| Cushion | < 6.35 | mm | |
| Screw L/D Ratio | 20.0:1.0 | | |
| Screw Compression Ratio | 2.5:1.0 | | |
| **Injection instructions** | | | |
| Hold Pressure: 50 to 75% of Injection PressureScrew Speed: Moderate | | | |
| **NOTE** | | | |
| 1. | 4x10 mm bar | | |
| 2. | 4x10 mm bar | | |
| 3. | 标准 B (120°C/h), 压 力1 (10N) | | |
| 4. | 2x100x355 mm | | |

## 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