# Lustran® ABS 556

# Acrylonitrile Butadiene Styrene

#### Styrolution

## Message:

General Information

Lustran ABS 556 resin is a low-gloss, medium-impact extrusion grade of ABS (acrylonitrile butadiene styrene). It has good melt strength for extrusion and thermoforming, and can be easily coextruded. It is easy to color with ABS color concentrates. The recommended ABS substrate is Lustran ABS 752 resin. Lustran ABS 556 resin is used for low-gloss applications, such as motor vehicle dashboards, interior panels, and trim. This includes recreational vehicles, cars, trucks, heavy trucks, construction vehicles, forklift trucks, and farm equipment. As with any product, use of Lustran ABS 556 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                         | E44741-235643                   |          |             |  |  |
| Features                              | Gloss, low                      |          |             |  |  |
|                                       | Good melt strength              |          |             |  |  |
|                                       | Good coloring                   |          |             |  |  |
|                                       | Medium impact resistance        |          |             |  |  |
|                                       |                                 |          |             |  |  |
| Uses                                  | Application in Automobile Field |          |             |  |  |
|                                       | Car interior parts              |          |             |  |  |
|                                       | Car dashboard                   |          |             |  |  |
|                                       |                                 |          |             |  |  |
| Agency Ratings                        | EC 1907/2006 (REACH)            |          |             |  |  |
| Forms                                 | Particle                        |          |             |  |  |
| Processing Method                     | Co-extrusion molding            |          |             |  |  |
|                                       | Sheet extrusion molding         |          |             |  |  |
|                                       | Thermoforming                   |          |             |  |  |
|                                       |                                 |          |             |  |  |
| Physical                              | Nominal Value                   | Unit     | Test Method |  |  |
| Specific Gravity                      | 1.06                            | g/cm³    | ASTM D792   |  |  |
| Specific Volume                       | 0.950                           | cm³/g    | ASTM D792   |  |  |
| Melt Mass-Flow Rate (MFR) (230°C/10.0 |                                 |          |             |  |  |
| kg)                                   | 10                              | g/10 min | ASTM D1238  |  |  |
| Mechanical                            | Nominal Value                   | Unit     | Test Method |  |  |
| Tensile Modulus                       | 1520                            | MPa      | ASTM D638   |  |  |
| Tensile Strength                      |                                 |          | ASTM D638   |  |  |
| Yield                                 | 19.3                            | MPa      | ASTM D638   |  |  |
| Fracture                              | 22.1                            | MPa      | ASTM D638   |  |  |
| Flexural Modulus                      | 1450                            | MPa      | ASTM D790   |  |  |
| Flexural Strength (Yield)             | 31.0                            | MPa      | ASTM D790   |  |  |
| Impact                                | Nominal Value                   | Unit     | Test Method |  |  |
| Notched Izod Impact                   |                                 |          | ASTM D256   |  |  |
| -40°C, 3.18 mm                        | 53                              | J/m      | ASTM D256   |  |  |
|                                       |                                 |          |             |  |  |

| -18°C, 3.18 mm                    | 69            | J/m      | ASTM D256   |
|-----------------------------------|---------------|----------|-------------|
| 23°C, 3.18 mm                     | 110           | J/m      | ASTM D256   |
| Instrumented Dart Impact          |               |          | ASTM D3763  |
| -34°C, Peak Energy                | 14.0          | J        | ASTM D3763  |
| -34°C, Total Energy               | 16.0          | J        | ASTM D3763  |
| -18°C, Peak Energy                | 19.0          | J        | ASTM D3763  |
| -18°C, Total Energy               | 23.0          | J        | ASTM D3763  |
| 23°C, Total Energy                | 30.0          | J        | ASTM D3763  |
| 23°C, Peak Energy                 | 26.0          | J        | ASTM D3763  |
| Thermal                           | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load |               |          | ASTM D648   |
| 0.45 MPa, not annealed            | 96.1          | °C       | ASTM D648   |
| 1.8 MPa, not annealed             | 86.1          | °C       | ASTM D648   |
| CLTE - Flow                       | 9.7E-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 |          | Test Method |
| Flame Rating (1.47 mm)            | НВ            |          | UL 94       |
| Optical                           | Nominal Value |          | Test Method |
| Gardner Gloss (60°)               | < 10          |          | 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 - 2560    | °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            |               |          |             |

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

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