INEOS STYROLUTION

# Luran S 797SE

Acrylonitrile Styrene Acrylate (ASA)

TECHNICAL DATASHEET

## DESCRIPTION

Luran® S 797SE is suitable for extrusion applications. It provides the highest impact toughness within the product line.

## FEATURES

- Highest impact strength
- Suitable for extrusion

## APPLICATIONS

- Surf boards
- Truck cabin parts
- Roof tiles

| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| **Rheological Properties** | | | |
| Melt Volume Rate 220 °C/10 kg | ISO 1133 | cm³/10 min | 5.5 |
| **Mechanical Properties** | | | |
| Izod Notched Impact Strength, 23 °C | ISO 180/A | kJ/m² | 30 |
| Izod Notched Impact Strength, -30 °C | ISO 180/A | kJ/m² | 10 |
| Charpy Notched Impact Strength, 23° C | ISO 179 | kJ/m² | 40 |
| Charpy Notched Impact Strength, -30 °C | ISO 179 | kJ/m² | 9 |
| Tensile Stress at Yield, 23 °C | ISO 527 | MPa | 42 |
| Tensile Strain at Yield, 23 °C | ISO 527 | % | 3.5 |
| Tensile Modulus | ISO 527 | MPa | 2000 |
| Tensile Creep Modulus (1000h) | ISO 899 | MPa | 1100 |
| Elongation at Break (MD) | ISO 527 | % | 11 |
| Flexural Strength, 23 °C | ISO 178 | MPa | 60 |
| Hardness, Shore D | ISO 868 | - | 83 |
| Hardness, Ball Indentation | ISO 2039-1 | MPa | 65 |
| **Thermal Properties** | | | |
| Vicat Softening Temperature VST/B/50 (50N, 50 °C/h) | ISO 306 | °C | 90 |
| Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h) | ISO 306 | °C | 104 |
| Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa) | ISO 75 | °C | 95 |

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| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa) | ISO 75 | °C | 100 |
| Coefficient of Linear Thermal Expansion | ISO 11359 | 10^(-6)/°C | 80 - 110 |
| Thermal Conductivity | DIN 52612-1 | W/(m K) | 0.17 |
| **Electrical Properties** | | | |
| Dielectric Constant (100 Hz) | IEC 60250 | - | 3.8 |
| Dissipation Factor (100 Hz) | IEC 60250 | 10^(-4) | 90 |
| Dissipation Factor (1 MHz) | IEC 60250 | 10^(-4) | 260 |
| Volume Resistivity | IEC 60093 | Ohm*m | 1E12 |
| Surface Resistivity | IEC 60093 | Ohm | 1e+013 |
| **Optical Properties** | | | |
| Light Transmission at 550 nm | ASTM D 1003 | % | 90 |
| Haze | ASTM D 1003 | % | <1 |
| **Other Properties** | | | |
| Density | ISO 1183 | kg/m³ | 1070 |
| Bulk Density (with external lubricant) | | kg/m³ | 590 |
| Water Absorption, Saturated at 23 °C | ISO 62 | % | 1.65 |
| Moisture Absorption, Equilibrium 23 °C/50% RH | ISO 62 | % | 0.35 |
| **Processing** | | | |
| Linear Mold Shrinkage | ISO 294-4 | % | 0.5 - 0.9 |
| Drying Temperature | | °C | 80 |
| Drying Time | | h | 2 - 4 |