INEOS STYROLUTION

# Luran S KR2858G3

Acrylonitrile Styrene Acrylate (ASA)

TECHNICAL DATASHEET

## DESCRIPTION

Luran® S KR2858G3 is a 15% glass fiber reinforced grade offering enhanced heat resistance and superior rigidity.

## FEATURES

- Highest rigidity
- High heat resistance

## APPLICATIONS

- Wind turbines
- Automotive guide plates

| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| **Rheological Properties** | | | |
| Melt Volume Rate 220 °C/10 kg | ISO 1133 | cm³/10 min | 5 |
| **Mechanical Properties** | | | |
| Charpy Notched Impact Strength, 23° C | ISO 179/1eA | kJ/m² | 7 |
| Charpy Notched Impact Strength, -30 °C | ISO 179/1eA | kJ/m² | 5 |
| Tensile Stress at Yield, 23 °C | ISO 527 | MPa | 110 |
| Tensile Strain at Yield, 23 °C | ISO 527 | % | 2.5 |
| Tensile Strain at Break, 23 °C | ISO 527 | % | 2.5 |
| Tensile Modulus | ISO 527 | MPa | 6600 |
| Flexural Strength, 23 °C | ISO 178 | MPa | 140 |
| Hardness, Ball Indentation | ISO 2039-1 | MPa | 170 |
| **Thermal Properties** | | | |
| Vicat Softening Temperature VST/B/50 (50N, 50 °C/h) | ISO 306 | °C | 115 |
| Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h) | ISO 306 | °C | 120 |
| Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa) | ISO 75 | °C | 110 |
| Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa) | ISO 75 | °C | 115 |
| Coefficient of Linear Thermal Expansion | ISO 11359 | 10^(-6)/°C | 30 |
| **Other Properties** | | | |
| Density | ISO 1183 | kg/m³ | 1180 |

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| Property, Test Condition | Standard | Unit | Values |
|---|---|---|---|
| Water Absorption, Saturated at 23 °C | ISO 62 | % | 1.42 |
| Moisture Absorption, Equilibrium 23 °C/50% RH | ISO 62 | % | 0.3 |
| Filler Content (% Ash) | | % | GF15 |
| Processing | | | |
| Linear Mold Shrinkage | ISO 294-4 | % | 0.4 - 0.7 |
| Melt Temperature Range | ISO 294 | °C | 240 - 280 |
| Mold Temperature Range | ISO 294 | °C | 60 |
| Injection Velocity | ISO 294 | mm/s | 200 |
| Drying Temperature | | °C | 80 |
| Drying Time | | h | 2 - 4 |

Typical values for uncolored products

## SUPPLY FORM

Luran® S is delivered in the form of cylindrical or spherical pellets. The bulk density of the pellets is from 0.55 to 0.65 g/cm³. Values may differ for special grades. Standard Packaging unit: 25 kg PE-bag on palette, shrunk or wrapped with PE film. In addition, delivery in larger units of up to 1000 kg (IBC = Intermediate Bulk Container) or silo trucks can be arranged. In dry areas with normal temperature control, Luran S pellets can be stored for relatively long periods of time without any change in mechanical properties. With unstable colors, however, storage over a number of years can give rise to some change in color. Under poor storage conditions, Luran S absorbs moisture, but this can be removed by drying.

## PRODUCT SAFETY

No adverse effects on the health of processing personnel have been observed where the products are correctly processed and the production areas are suitably ventilated. For styrene, alpha-methylstyrene, acrylonitrile, and butyl acrylate the maximum allowable workplace concentrations must be observed according to the pertaining national regulations. In Germany, the following limit values are valid TRGS 900 (Aug. 2004): styrene, MAK-value: 20 ml/m³; alpha-methylstyrene, MAK-value: 100 ml/m³; acrylonitrile, TRK-value: 3 ml/m³, and butyl acrylate, MAK-value: 2 ml/m³ (1.7.2004). According to EU directive 67/548/EEC, Annex I (2001), acrylonitrile is classified as carcinogenic, category 2 (´substances which should be regarded as if they are carcinogenic to man´). Experience has shown that when Luran® SC is processed correctly with appropriate ventilation, the levels are far below the limits mentioned above. Inhalation of the vapors of degradation products which can arise on severe overheating of the materials or during purging out should be avoided. Further information can be found in the Luran SC safety data sheets.

## DISCLAIMER

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