

Luran S 778T

Acrylonitrile Styrene Acrylate (ASA)

TECHNICAL DATASHEET

DESCRIPTION

Luran® S acrylonitrile styrene acrylate (ASA) polymers feature high surface quality and good impact strength including enhanced colour fastness. The products deliver superior long-term performance when exposed to UV irradiation and additionally provide excellent chemical resistance. Luran® S 778T is an injection molding grade with enhanced heat resistance and best chemical resistance among the Luran S grades.

FEATURES

- Chemical resistance
- Heat resistance
- Long-term property retention
- UV resistance

APPLICATIONS

- Unpainted automotive exterior: radiator grills
- Truck: exterior body panels
- Bicycle/ E-bicycle parts
- Toys, sports & leisure

Property, Test Condition	Standard	Unit	Values
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm ³ /10 min	5
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m ²	15
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m ²	4
Tensile Modulus	ISO 527	MPa	2500
Tensile Stress at Yield, 23 °C	ISO 527	MPa	54
Tensile Strain at Yield, 23 °C	ISO 527	%	3.4
Nominal Strain at Break, 23 °C	ISO 527	%	8
Flexural Modulus	-	-	2450
Tensile Creep Modulus (1000h)	ISO 899	MPa	1250
Flexural Strength, 23 °C	ISO 178	MPa	80
Hardness, Ball Indentation	ISO 2039-1	MPa	85
Izod Notched Impact Strength, -40 °C (-40 °F)	ASTM D 256	kJ/m ²	0.7
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	104

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Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	113
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	103
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	106
Coefficient of Linear Thermal Expansion	ISO 11359	10 ⁻⁶ /°C	80 - 110
Thermal Conductivity	ISO 22007-4	W/(m K)	0.17
Other Properties			
Density	ISO 1183	kg/m ³	1070
UL94 rating at 1.5 mm thickness	IEC 60695-11-10	-	HB
Burning rate (US-FMVSS), 2.0 mm	ISO 3795	mm/min	30
Water Absorption, Saturated at 23 °C	ISO 62	%	1.65
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.35
Processing			
Melt Temperature Range	ISO 294	°C	240 - 280
Mold Temperature Range	ISO 294	°C	40 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4
Molding shrinkage, free, longitudinal	-	%	0.4 - 0.7
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7