

# Luran® ECO 378P BC60

Styrene Acrylonitrile (SAN)

## TECHNICAL DATASHEET

### DESCRIPTION

Luran® ECO 378P is an easy flow grade of SAN with enhanced chemical resistance and mechanical strength. Luran ECO 378P BC60 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

### FEATURES

- Chemical resistance
- Heat resistance
- Transparency

### APPLICATIONS

- Food contact applications
- Industrial batteries
- Sanitary housings

Property, Test Condition	Standard	Unit	Values
<b>Sustainability Properties</b>			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	78
Attributed Content of ISCC-certified Bio-Circular Sources (min.)	-	%	60
<b>Rheological Properties</b>			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm <sup>3</sup> /10 min	20
<b>Mechanical Properties</b>			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m <sup>2</sup>	2
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	19
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m <sup>2</sup>	19
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	2
Tensile Modulus	ISO 527	MPa	3800
Tensile Stress at Yield, 23 °C	ISO 527	MPa	75
Tensile Strain at Break, 23 °C	ISO 527	%	3.5
Flexural Modulus, 23 °C	ISO 178	MPa	3731
Flexural Strength, 23 °C	ISO 178	MPa	135
Hardness, Ball Indentation	ISO 2039-1	MPa	175
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	107

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Property, Test Condition	Standard	Unit	Values
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	89
Heat Deflection Temperature B; (unannealed; 0.45 MPa)	ISO 75	°C	101
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	70
Thermal Conductivity	ISO 22007-4	W/(m K)	0.17
<b>Optical Properties</b>			
Refractive Index, Sodium D Line	ISO 489	-	1.56
Haze	ASTM D 1003	%	< 1
Light Transmission at 550 nm	ASTM D 1003	%	> 89
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1080
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.3
<b>Processing</b>			
Linear Mold Shrinkage	ISO 294-4	%	0.3 - 0.7
Melt Temperature Range	ISO 294	°C	220 - 260
Mold Temperature Range	ISO 294	°C	40 - 80
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4