INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

Luran S ECO 778TE BC30

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 ECO 778TE is an extrusion grade with enhanced heat resistance and best chemical resistance among the Luran S grades. Luran S ECO 778TE BC30 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

FEATURES

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

APPLICATIONS

- PVC capstock for sheets, sidings, roof tiles, gardening equipment
- Extruded sheets & profiles
- Sidings and deckings

Property, Test Condition	Standard	Unit	Values
Sustainability Properties			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	39
Attributed Content of ISCC-certified Bio-Circular Sources (min.)	-	%	30
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	15
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m²	4
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	220
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, 23 °C	ISO 178	MPa	2450
Flexural Strength, 23 °C	ISO 178	MPa	80

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Property, Test Condition	Standard	Unit	Values
Hardness, Ball Indentation	ISO 2039-1	MPa	85
Thermal Properties			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	104
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/m³	1070
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	200 - 250
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7