INEOS STYROLUTION

ISCC International Sustainability & Carbon Certification

NAS® ECO 30 BC70

Styrene Methyl Methacrylate (SMMA)

TECHNICAL DATASHEET

DESCRIPTION

NAS® ECO 30 is a styrene acrylic copolymer that can be used in a variety of applications demanding a strong, stiff water-clear plastic resin with excellent thermal stability. NAS ECO 30 BC70 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

FEATURES

- High surface quality
- Sterilisable(ETO,NO2,Irradiation)
- Transparency
- Low density
- Water clear appearance

APPLICATIONS

- Water filters
- Point-of-purchase displays
- Food contact applications
- Medical devices
- Cosmetic packaging

Property, Test Condition	Standard	Unit	Values
Sustainability Properties			
Carbon Footprint Reduction vs Fossil-Based (3rd party validated)	ISO 14044	%	79
Attributed Content of ISCC-certified Bio-Circular Sources (min.)	-	%	70
Rheological Properties			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm³/10 min	30
Mechanical Properties			
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m²	1.5
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m²	12
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m²	2.5
Tensile Modulus	ISO 527	MPa	3300
Tensile Stress at Yield, 23 °C	ISO 527	MPa	60
Tensile Strain at Break, 23 °C	ISO 527	%	2.5
Flexural Modulus, 23 °C	ISO 178	MPa	3400
Flexural Strength, 23 °C	ISO 178	MPa	100
Hardness, Ball Indentation	ISO 2039-1	MPa	169
Thermal Properties			

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Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	98
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	95
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	96
Optical Properties			
Refractive Index, Sodium D Line	ISO 489	-	1.56
Light Transmission at 550 nm	ASTM D 1003	%	91.4
Haze	ASTM D 1003	%	0.3
Other Properties			
Density	ISO 1183	kg/m³	1090
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.15
Processing			
Melt Temperature Range	ISO 294	°C	200 - 240
Mold Temperature Range	ISO 294	°C	30 - 50
Drying Temperature	-	°C	80
Drying Time	-	h	2