NAS® ECO 30 BC70

SMMA — INEOS Styrolution

Product Texts

NAS® ECO 30 BC70 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.

Carbon Footprint Reduction vs Fossil-Based (3rd party validated): 79 % (ISO 14044)
Attributed Content of ISCC-certified Bio-Circular Sources (min.): 70 %

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**30**	cm³/10min	ISO 1133
Temperature	**220**	°C	-
Load	**10**	kg	-
[C] Density of melt	**984**	kg/m³	-
[C] Thermal conductivity of melt	**0.202**	W/(m K)	-
[C] Spec. heat capacity of melt	**2210**	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3300**	MPa	ISO 527
[C] Stress at break	**60**	MPa	ISO 527
[C] Strain at break	**2.5**	%	ISO 527
Flexural modulus, 23°C	**3400**	MPa	ISO 178
Flexural strength	**100**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**12**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**1.5**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**2.5**	kJ/m²	ISO 180/1A
Ball indentation hardness	**169**	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**95**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**96**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**98**	°C	ISO 306

[C]: CAMPUS

Optical properties	Value	Unit	Test Standard
ASTM Data			
Haze	**0.3**	%	ASTM D 1003
Light Transmittance	**91.4**	%	ASTM D 1003
Other Standards[S]			
Index of Refraction	**1.56**	-	ISO 489

S: These properties are reported by the producer according standards that are different to our defaults.

Other properties	Value	Unit	Test Standard
[C] Humidity absorption	**0.15**	%	Sim. to ISO 62
[C] Density	**1090**	kg/m³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2**	h	-
Melt temperature	**200 - 240**	°C	-
Mold temperature	**30 - 50**	°C	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Special Characteristics
Transparent, Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Features
High Gloss, Thermal Stability, Copolymer

Chemical Resistance
Radiation Resistance

Certifications
Contains renewable resources, Food contact, ISCC Plus

Applications
Medical, Packaging

Regional Availability
North America, Europe, Asia Pacific, Near East/Africa

Other text information

Injection molding
PREPROCESSING
Pre-drying, Temperature: 80°C
Pre-drying, Time: 2h
PROCESSING
Melt temperature, range: 200 - 240°C
Mold temperature, range: 30 - 50°C