Terluran ECO® GP-35 BC100

ABS — INEOS Styrolution

Product Texts

Terluran® ECO GP-35 BC100 is a high-flow, general purpose injection molding grade with good ductility, intended for moldings with thin walls and/or adverse flow length to wall ratio. Terluran® ECO GP-35 BC100 is a complete bio-attributed solution with bio-attributed content from all three monomers (styrene monomer, butadiene, and acrylonitrile). The use of renewable feedstock brings significant product carbon footprint savings. Terluran® ECO GP-35 BC100 is produced according to an ISCC-certified mass balance approach, and has identical physical and mechanical properties as its fossil-based counterpart. All the same regulatory documents are also available.

Terluran ECO GP-35 BC100 is an ISCC compliant product leading to a substitution of fossil source styrene, acrylonitrile and butadiene with attributed ISCC certified bio-circular styrene, acrylonitrile and butadiene.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**34**	cm³/10min	ISO 1133
Temperature	**220**	°C	-
Load	**10**	kg	-
Molding shrinkage, parallel	**0.6**	%	ISO 294-4, 2577
[C] Density of melt	**934**	kg/m³	-
[C] Thermal conductivity of melt	**0.18**	W/(m K)	-
[C] Spec. heat capacity of melt	**2300**	J/(kg K)	-
[C] Ejection temperature	**84**	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**2300**	MPa	ISO 527
[C] Yield stress	**44**	MPa	ISO 527
[C] Yield strain	**2.4**	%	ISO 527
[C] Nominal strain at break	**12**	%	ISO 527
Flexural strength	**65**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**125**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**90**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**19**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**7**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**22**	kJ/m²	ISO 180/1A
Izod notched impact strength	**7**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
Ball indentation hardness	**99**	MPa	ISO 2039-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Temp. of deflection under load, 1.80 MPa	**92**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**95**	°C	ISO 75-1/-2
Vicat softening temperature, A	**102**	°C	ISO 306
[C] Vicat softening temperature, B	**95**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**95**	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
Yellow Card available	**yes**	-	-
[C] Burning Behav. at thickness h	**HB**	class	IEC 60695-11-10
Thickness tested	**3.0**	mm	-
Yellow Card available	**yes**	-	-
Other Standards[S]			
Thermal Conductivity, solid state	**0.17**	W/(m K)	ISO 22007-4

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

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**1E13**	Ohm	IEC 62631-3-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.95**	%	Sim. to ISO 62
[C] Humidity absorption	**0.24**	%	Sim. to ISO 62
[C] Density	**1040**	kg/m³	ISO 1183
Bulk density	**600**	kg/m³	-

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**80**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Melt temperature	**220 - 260**	°C	-
Mold temperature	**30 - 80**	°C	-
Injection speed	**200**	mm/s	-

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Additives
Lubricants

Special Characteristics
Platable, High impact or impact modified, Heat stabilized or stable to heat

Features
Ductile, High Gloss

Certifications
Contains renewable resources, ISCC Plus

Applications
Automotive, Electrical and Electronical, General Purpose, Toys

Regional Availability
North America, Europe, Near East/Africa

Other text information

Injection molding
PREPROCESSING
Pre-drying, Temperature: 80°C
Pre-drying, Time: 2 - 4h
PROCESSING
Melt temperature, range: 220 - 260°C
Mold temperature, range: 30 - 80°C