

# Terluran ECO GP-35 BC60

Acrylonitrile Butadiene Styrene (ABS)

## TECHNICAL DATASHEET

### DESCRIPTION

Terluran® ECO GP-35 BC60 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 BC60 is an ISCC compliant product leading to a substitution of fossil source styrene with attributed ISCC certified bio-circular styrene.

### FEATURES

- Excellent colorability
- High flowability
- Good impact resistance
- Good heat distortion resistance
- High quality surface finish and gloss
- Great mechanical strength and rigidity

### APPLICATIONS

- Injection molding
- Thin wall components for telecommunications
- Household and sanitary appliances
- Toys
- Automotive components
- Electroplating

Property, Test Condition	Standard	Unit	Values
<b>Rheological Properties</b>			
Melt Volume Rate 220 °C/10 kg	ISO 1133	cm <sup>3</sup> /10 min	34
<b>Mechanical Properties</b>			
Izod Notched Impact Strength, 23 °C	ISO 180/A	kJ/m <sup>2</sup>	22
Izod Notched Impact Strength, -30 °C	ISO 180/A	kJ/m <sup>2</sup>	7
Charpy Notched Impact Strength, 23° C	ISO 179/1eA	kJ/m <sup>2</sup>	19
Charpy Notched Impact Strength, -30 °C	ISO 179/1eA	kJ/m <sup>2</sup>	7
Charpy Unnotched, 23 °C	ISO 179/1eU	kJ/m <sup>2</sup>	125
Charpy Unnotched, -30 °C	ISO 179/1eU	kJ/m <sup>2</sup>	90
Tensile Stress at Yield, 23 °C	ISO 527	MPa	44
Tensile Strain at Yield, 23 °C	ISO 527	%	2.4
Tensile Modulus	ISO 527	MPa	2300
Nominal Strain at Break, 23 °C	ISO 527	%	12
Flexural Strength, 23 °C	ISO 178	MPa	65

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Property, Test Condition	Standard	Unit	Values
Hardness, Ball Indentation	ISO 2039-1	MPa	99
<b>Thermal Properties</b>			
Vicat Softening Temperature VST/B/50 (50N, 50 °C/h)	ISO 306	°C	95
Vicat Softening Temperature, VST/A/50 (10N, 50 °C/h)	ISO 306	°C	102
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	92
Heat Deflection Temperature B; (annealed 4 h/80 °C; 0.45 MPa)	ISO 75	°C	95
Coefficient of Linear Thermal Expansion	ISO 11359	10 <sup>-6</sup> /°C	80 - 110
Thermal Conductivity	ISO 22007-4	W/(m K)	0.17
<b>Electrical Properties</b>			
Volume Resistivity	IEC 62631-3-1	Ohm*m	>10 <sup>13</sup>
Surface Resistivity	IEC 62631-3-1	Ohm	>10 <sup>13</sup>
<b>Optical Properties</b>			
Yellowness Index	DIN 6167	-	13
<b>Other Properties</b>			
Density	ISO 1183	kg/m <sup>3</sup>	1040
Water Absorption, Saturated at 23 °C	ISO 62	%	0.95
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.24
<b>Processing</b>			
Linear Mold Shrinkage	ISO 294-4	%	0.4 - 0.7
Melt Temperature Range	ISO 294	°C	220 - 260
Mold Temperature Range	ISO 294	°C	30 - 80
Injection Velocity	ISO 294	mm/s	200
Drying Temperature	-	°C	80
Drying Time	-	h	2 - 4