Technical Data Sheet

*Circulen*Recover EP PA66 GF50 H BLK968001

Polyamide 66

Product Description

50% glass fiber reinforced, heat stabilized Polyamide 66 formulated on mechanical recycled sourcing. The product is available in black color, pellet form. Color match generally possible for dark colors only. Automotive structural applications are possible.Sustainability:According with the requirements of Standard ISO 14021:2016, Circulen Recover EP PA66 GF50 H BLACK contains 35% of recycled material that is fully based on pre-consumer waste.Recycled content according to DIN SPEC 91446:2021-12: R35Data Quality Level according to DIN SPEC 91446:2021-12: DQL4Data Quality Level according to VDA 284: DQL Automotive

Processing Method	Injection Molding
Attribute	Good Heat Aging Resistance; Medium Viscosity
Filler/Reinforcement	Glass Fiber, 50%
Resin ID	PA66 GF50

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.57	g/cm³	ISO 1183
Apparent (Bulk) Density	0.60 to 0.80	g/cm³	ISO 60
Viscosity Number	140	cm³/g	ISO 307
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.3	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	4.0	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	220	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	150	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	16500	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	10500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	14	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	12	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	20	kJ/m²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	85	kJ/m²	ISO 179
(-30 °C, Type 1, Edgewise)	80	kJ/m²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179

Thermal			
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	>250	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	245	°C	ISO 75-2/A
Flammable			
Burning Rate, (FMVSS 302)	<100	mm/min	FMVSS 302
Additional Information			
Water Absorption Sat/23C, - Conditioned	1.2	%	ISO 62
UL Information			
Flame Rating	HB		UL 94

Injection Parameters	Nominal Value	Units
Drying Time	3.0 to 4.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Processing (Melt) Temp	280 to 300	°C
Mold Temperature	60 to 120	°C