

Technical Data Sheet

CirculenRecover EP PA66 GF50 H NAT

Polyamide 66

Product Description

50% glass fiber reinforced, heat stabilized Polyamide 66 formulated on mechanical recycled sourcing. The product is available in a natural formulation, which results in a greyish color tone, pellet form. Sustainability: According with the requirements of Standard ISO 14021:2016, Circulen Recover EP PA66 GF50 H NAT contains 45% of recycled material that is fully based on pre-consumer waste. Recycled content according to DIN SPEC 91446:2021-12: R35 Data Quality Level according to DIN SPEC 91446:2021-12: DQL4 Data 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/cm ³	ISO 1183
Apparent (Bulk) Density	0.60 to 0.80	g/cm ³	ISO 60
Viscosity Number	140	cm ³ /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/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	12	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	20	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	75	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	75	kJ/m ²	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
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Additional Information

Water Absorption Sat/23C, - Conditioned	1.2 %	ISO 62
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UL Information

Flame Rating	HB	UL 94
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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