

Technical Data Sheet

CirculenRecover EP PA66 GF15HIHBLK968001



Polyamide 66

Product Description

15% glass fiber reinforced, impact modified, heat stabilized Polyamide 66 formulated on mechanical recycled sourcing. Standard color is black, color matching for dark colors possible. Automotive structural applications are possible. Sustainability: According with the requirements of Standard ISO 14021:2016, Circulen Recover EP PA66 GF15 HI H BLACK contains 75% of recycled material that is fully based on pre-consumer waste. Recycled content according to DIN SPEC 91446:2021-12: R75 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	Heat Stabilized; Impact Modified; Medium Viscosity
Filler/Reinforcement	Glass Fiber, 15%
Resin ID	PA66-I GF15

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.21	g/cm ³	ISO 1183
Apparent (Bulk) Density	0.60 to 0.80	g/cm ³	ISO 60
Viscosity Number	155	cm ³ /g	ISO 307
Mechanical			
Tensile Stress at Yield	102	MPa	ISO 527-2
- Conditioned	60	MPa	ISO 527-2
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.8	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	11	%	ISO 527-2
Tensile Strain at Yield	2.8	%	ISO 527-2
- Conditioned	7.5	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	102	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	55.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	5400	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	3000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	4.5	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	18	kJ/m ²	ISO 179

Charpy Impact Strength - Unnotched		
(23 °C, Type 1, Edgewise)	56 kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	54 kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	85 kJ/m ²	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)	210 °C	ISO 75-2/A
Flammable		
Burning Rate, (FMVSS 302)	<100 mm/min	FMVSS 302
Additional Information		
Water Absorption Sat/23C, - Conditioned	1.9 %	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