

Technical Data Sheet

CirculenRecover EP PA6 GF30 HIHBLK968001



Polyamide 6

Product Description

30% glass fiber reinforced, heat stabilized and impact modified Polyamide 6 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 PA6 GF30 HI H BLACK contains 30% of recycled material that is fully based on pre-consumer waste. Recycled content according to DIN SPEC 91446:2021-12: R30 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, 30%
Resin ID	PA6-I GF30

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.30	g/cm ³	ISO 1183
Apparent (Bulk) Density	0.60 to 0.80	g/cm ³	ISO 60
Mechanical			
Tensile Stress at Yield	105	MPa	ISO 527-2
- Conditioned	75	MPa	ISO 527-2
Tensile Strain at Break			
(Type 1A, 5 mm/min)	3.0	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	9.5	%	ISO 527-2
Tensile Strain at Yield	3	%	ISO 527-2
- Conditioned	6	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	105	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	60.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	7500	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	4500	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	20	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	30	kJ/m ²	ISO 179

Charpy Impact Strength - Unnotched		
(23 °C, Type 1, Edgewise)	65 kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	60 kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	80 kJ/m ²	ISO 179
Thermal		
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	220 °C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	200 °C	ISO 75-2/A
Flammable		
Burning Rate, (FMVSS 302)	<100 mm/min	FMVSS 302
Additional Information		
Water Absorption Sat/23C, - Conditioned	1.6 %	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	250 to 280	°C
Mold Temperature	60 to 100	°C