

Technical Data Sheet

CirculenRecover 330 PA6 MV HI 8001



Polyamide 6

Product Description

Unfilled, Medium viscosity, 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, *CirculenRecover 320 PA6 MT30 8001* contains **30% of recycled material that is fully based on pre-consumer waste.**

Recycled content according to DIN SPEC 91446:2021-12: R25

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 High Impact Resistance; Low Temperature Toughness; Medium Viscosity

Resin ID PA6-I

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.11	g/cm ³	ISO 1183
Mechanical			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	60.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	35.0	MPa	ISO 527-2
Nominal Tensile Strain at Break			
(50 mm/min, Type 1A) - Conditioned	>100	%	ISO 527-2
(50 mm/min, Type 1A)	>50	%	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	4.2	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	20	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	2200	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	800	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	16	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	10	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	60	kJ/m ²	ISO 179

Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
Hardness			
Ball Indentation Hardness			
(H 358/30)	110 MPa		ISO 2039-1
(H 358/30) - Conditioned	60.0 MPa		ISO 2039-1
Thermal			
Vicat Softening Temperature			
(B (50N), 50 °C/h)	175 °C		ISO 306
(A (10N), 50 °C/h)	215 °C		ISO 306
Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	140 °C		ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	60.0 °C		ISO 75-2/A
RTI Elec			
(1.5 mm)	65.0 °C		UL 746B
(3.0 mm)	65.0 °C		UL 746B
RTI Imp			
(1.5 mm)	65.0 °C		UL 746B
(3.0 mm)	65.0 °C		UL 746B
RTI Str			
(1.5 mm)	65.0 °C		UL 746B
(3.0 mm)	65.0 °C		UL 746B
Electrical			
Volume Resistivity	>1.0E+13 ohm*m		IEC 62631-3-1
- Conditioned	>1.0E+10 ohm*m		IEC 62631-3-1
Comparative Tracking Index (CTI)	600 V		IEC 60112
Surface Resistivity	>1.0E+15 ohm		IEC 60093
- Conditioned	>1.0E+12 ohm		IEC 60093
Flammable			
Burning Rate			
(2.00 mm)	<100 mm/min		FMVSS 302
(2.00 mm)	<100 mm/min		ISO 3795
Glow Wire Flammability Index			
(1.5 mm)	650 °C		IEC 60695-2-12
(3.0 mm)	650 °C		IEC 60695-2-12
Additional Information			
Water Absorption 23C/50RH	2.3 %		ISO 62
UL Information			
Flammability Classification			
(0.75 mm)	HB		IEC 60695-11-10, -20
(1.5 mm)	HB		IEC 60695-11-10, -20
(3.0 mm)	HB		IEC 60695-11-10, -20
UL File Number	E86615		

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 270	°C
Mold Temperature	60 to 90	°C