

Product Texts

PA,,GHT,C14-020

Rilsan® Clear G850 Rnew® is a high performance transparent copolyamide, partially based on renewable resources. This grade has been specially designed for injection molding applications, ideally suited for optic as high end eyewear frames.

According to ASTM D6866, the biobased carbon content is measured at 45%.

Main applications:

- Sun
- optical
- reading glass frames
- Structural frames of smart phones
- Watch covers
- Household appliances

Packaging:

This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

Shelf Life:

Two years from the delivery. For any use above this limit, please refer to our technical services.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	4.4 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	2.16 / *	kg	-
^[C] Molding shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	1680 / 1640	MPa	ISO 527
^[C] Yield stress	64 / 58	MPa	ISO 527
^[C] Yield strain	8.2 / 8.6	%	ISO 527
^[C] Nominal strain at break	>50 / >50	%	ISO 527
^[C] Charpy notched impact strength, +23°C	8.5 / 15	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	8.6 / 11.4	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	145 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	120 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	135 / *	°C	ISO 75-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
Yellow Card available	yes / *	-	-

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	4 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.7 / *	%	Sim. to ISO 62
^[C] Density	1010 / 1010	kg/m ³	ISO 1183
Biobased content	45	%	-

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	90	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	250 - 300	°C	-
Mold temperature	20 - 80	°C	-

Characteristics

Processing

Injection Molding, Film Extrusion

Certifications

Contains renewable resources

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Special Characteristics

Heat stabilized or stable to heat, Transparent

Other text information

Injection molding

Injection Process conditions:

- Typical melt temperature (Min / Recommended / Max) : 250°C / 280°C / 300°C
- Typical mold temperature : 20 - 80 °C
- Drying time and temperature (only for bags opened for more than two hours): 4 - 6 hours at 90°C

Film extrusion

Extrusion Process conditions:

- Typical melt temperature (Min / Recommended / Max) : 250°C / 270°C / 290°C
- Drying time and temperature (only for bags opened for more than two hours): 4 - 6 hours at 90°C