

# RILSAN® CLEAR G 850 Rnew

Rilsan® Clear G 850 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.

## MAIN CHARACTERISTICS

Property	Typical Value	Unit	Test method
Renewable Carbon (measured)	45	%	ASTM D6866
Density	1.01	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium At 23°C and 50% R.H.	1.7	%	ISO 62
Water Absorption at Equilibrium At 23°C in water	4	%	
Glass Transition Temperature (T <sub>g</sub> )	150	°C	ISO 11357
Heat Deflection Temperature Under 0.45 MPa	135	°C	ISO 75
Under 1.80 MPa	120	°C	
Transparency (560 nm, 2 mm)	91.7	%	ASTM D 1003-97
Refractive Index	1.511	-	ISO 489 (A)
Shrinkage (after 24 h, 2 mm, mold at 40°C) //	0.60	%	Internal method
⊥	0.75	%	
Hardness (*) Instantaneous	80	Shore D	ISO 868
After 15 s	78	Shore D	
Tensile Test (*) Stress at Yield	61	MPa	ISO 527
Strain at Yield	8	%	
Stress at Break	55	MPa	
Strain at Break	> 100	%	
Tensile Modulus (*)	1670	MPa	ISO 527
Flexural Modulus (*)	1630	MPa	ISO 178
Charpy Impact (*) Unnotched 23°C	No break	kJ/m <sup>2</sup>	ISO 179
Unnotched -30°C	No break	kJ/m <sup>2</sup>	
V-notched 23°C	7.5	kJ/m <sup>2</sup>	
V-notched -30°C	7	kJ/m <sup>2</sup>	

(\*) Samples conditioned 15 days at 23°C - 50 % R.H.

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## MAIN APPLICATIONS

- Sun, optical, reading glass frames.
- Covers of smart phone
- Watch covers
- Household appliance

## PROCESSING CONDITIONS

Conditions	Typical values
<b>Injection</b> Melt Temperature (Min / Recommended / Max)	<b>250°C / 280°C / 300°C</b>
<b>Mold</b> Temperature	<b>20 – 80°C</b>
<b>Drying (only necessary for bags opened for more than two hours)</b> Time Temperature	<b>4 - 6 hours 90°C</b>

## PACKAGING

This grade is delivered dried in sealed packaging (25 kg bags).

## SHELF LIFE

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

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See Safety Data Sheet for Health & Safety Considerations.