

Rilsan® Clear **G830 Rnew** is a high performance transparent polyamide partially based on renewable resources. This grade has been specially designed for injection molding applications, ideally suited for optics as high end eyewear frames.

GENERAL PROPERTIES	METHOD	UNIT	TYPICAL VALUES
Percentage of renewable carbon	ASTM 6866	%	53-55
Density	ISO R 1183 D	g/cm <sup>3</sup>	1.01
Water absorption at equilibrium at 23°C and 50 % RH	ISO 62	%	1.3
Water absorption at equilibrium at 23°C in water		%	3.3
Glass transition temperature (Tg)	ISO 11357	°C	135
Heat deflection temperature (HDT) under 0.45 MPa	ISO 75	°C	110
under 1.8 MPa		°C	95
Transparency (560 nm, 2mm)	ISO 13168-1,2	%	91.5
Shrinkage (after 24h, 2 mm, mould at 40°C)	Internal method		
//		%	0.1
⊥		%	0.5
Hardness shore (*) instantaneous	ISO 868	Shore D	83
after 15 s		Shore D	81
Tensile test (*) stress at yield	ISO 527	MPa	55
strain at yield		%	7
stress at break		MPa	60
strain at break		%	> 150
Tensile modulus (*)	ISO 527	MPa	1690
Flexural modulus (*)	ISO 178	MPa	1530
Charpy impact			
unnotched 23°C	ISO 179/1eU	kJ/m <sup>2</sup>	No break
unnotched -30°C	"	"	No break
notched 23°C	ISO 179/1eA	"	11
notched -30°C	"	"	10

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

PROCESSING CONDITIONS	TYPICAL VALUES
Drying (*): time / temperature	4-6 hours / 70-80°C
Injection temperature: min / recommended / max	240°C / 270°C / 300°C
Mold temperature:	20-80°C

(\*) Rilsan® Clear is delivered dried in sealed packaging ready to be processed. Drying is only necessary for bags opened for more than 2 hours.

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