

Rilsan® Clear G850 Rnew® MED

PA*

ARKEMA

PA,,GHT,C14-020

Rilsan® Clear G 850 Rnew® MED is a high performance transparent copolyamide having outstanding purity level, partially based on renewable resources. This grade offers highest quality and is specifically designed to meet the stringent requirements of the medical applications.

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

Main applications:

- Dental accessories
- Breathing mask
- Medical perfusion tube accessories

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.

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

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	1680 / 1640	MPa	ISO 527
Yield stress	64 / 58	MPa	ISO 527
Yield strain	8.2 / 8.6	%	ISO 527
Nominal strain at break	>50 / >50	%	ISO 527
Notched Impact Strength (Charpy), +23 °C	8.5 / 15	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30 °C	8.6 / 11.4	kJ/m ²	ISO 179/1eA
Shore Hardness D (15s)	80 / -	-	ISO 868

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Glass Transition Temperature (10 °C/min)	145 / *	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	120 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	135 / *	°C	ISO 75-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Water Absorption	4 / *	%	Sim. to ISO 62
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1010 / 1010	kg/m ³	ISO 1183
Biobased carbon content	45	%	-

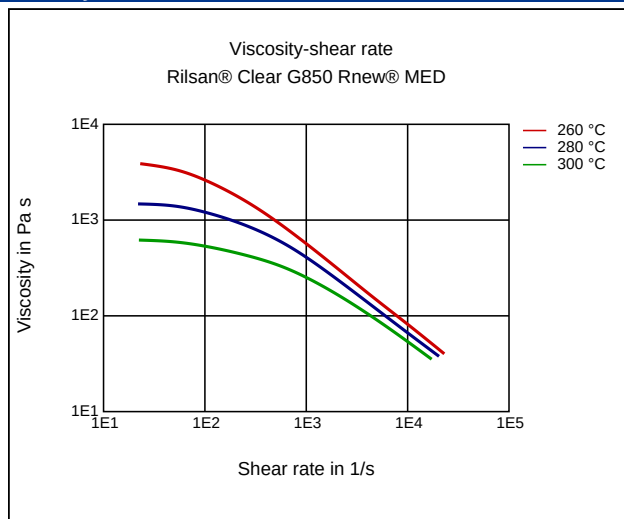
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	90	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	250 - 300	°C	-
Mold temperature	20 - 80	°C	-

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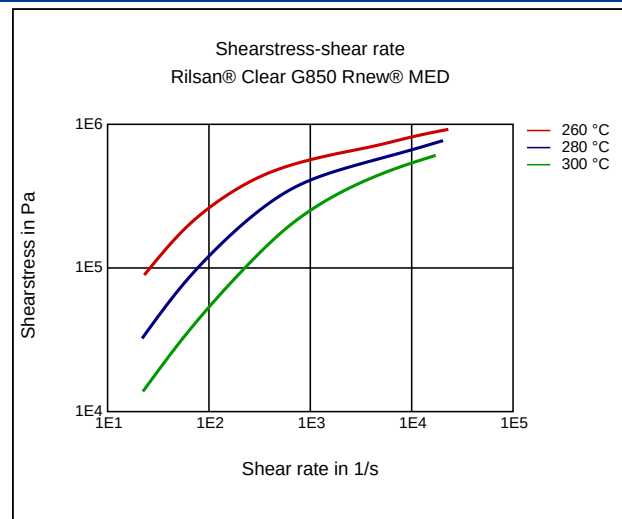
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Diagrams

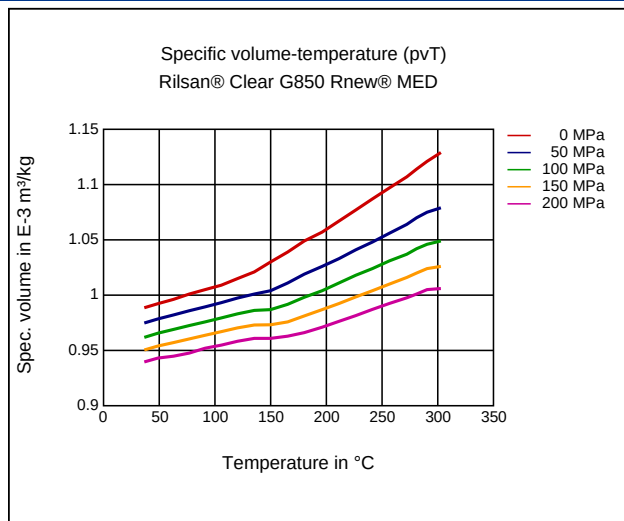
Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding, Film Extrusion

Delivery form

Pellets

Special Characteristics

Heat aging stabilized, Transparent

Certifications

Contains renewable resources

Applications

Medical

Injection Molding

Processing 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

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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
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