

RILSAN® CLEAR G850 RNEW® MED

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%.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	4.4 / *	cm ³ /10 min	ISO 1133
Temperature	275 / *	°C	-
	527 / *	°F	-
Load	2.16 / *	kg	-
	4.76 / *	lb	-
Molding Shrinkage, parallel	0.9 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.9 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Poisson's ratio	0.393	-	-
Tensile Modulus	1680 / 1640	MPa	ISO 527-1/-2
	244000 / 238000	psi	
Yield Stress	64 / 58	MPa	ISO 527-1/-2
	9280 / 8410	psi	
Yield Strain	8.2 / 8.6	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Stress at Break	56 / 53	MPa	ISO 527-1/-2
	8120 / 7690	psi	
Strain at Break	>50 / >50	%	ISO 527-1/-2
Shore D Hardness, after 15 s	80 / *	-	ISO 868
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	8.5 / 15	kJ/m ²	ISO 179/1eA
	4.04 / 7.14	ftlb/in ²	
Charpy Notched Impact Strength, -30°C	8.6 / 11.4	kJ/m ²	ISO 179/1eA
	4.09 / 5.42	ftlb/in ²	
THERMAL PROPERTIES			

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 Source: automatically generated TDS from Material Database on 12-08-2024

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Glass Transition Temperature, 10°C/min	145 / *	°C	ISO 11357-1/-2
	293 / *	°F	
Temp. of Deflection Under Load, 1.80 MPa	120 / *	°C	ISO 75-1/-2
	248 / *	°F	
Temp. of Deflection Under Load, 0.45 MPa	135 / *	°C	ISO 75-1/-2
	275 / *	°F	
OTHER PROPERTIES			
%Bio-Based	45	-	ASTM D6866
Water Absorption, 23°C, immersion, equilibrium	4 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	1.7 / *	%	ISO 62
Density	1010 / 1010	kg/m ³	ISO 1183
	1.01 / 1.01	g/cm ³	
OPTICAL PROPERTIES			
Luminous Transmittance	92	%	ISO 13468-1, -2

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.

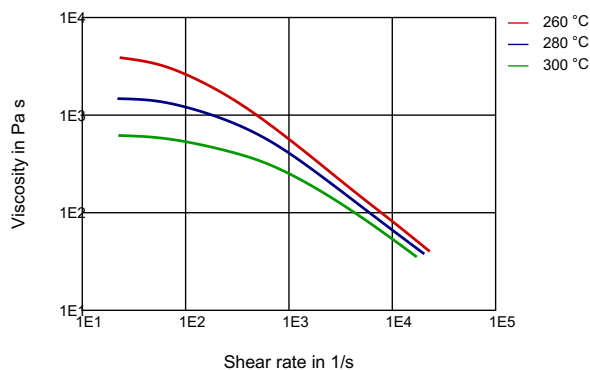
SHELF LIFE:

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

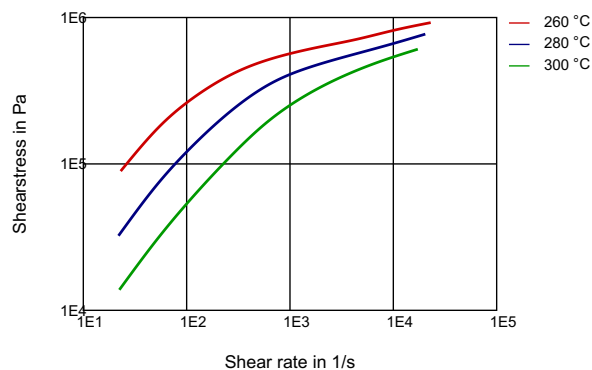
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DIAGRAMS

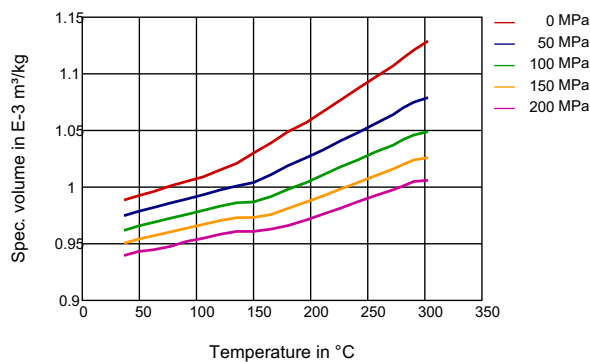
VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE



SPECIFIC VOLUME-TEMPERATURE (PVT)



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

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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PROCESSING Injection Molding, Film Extrusion	Headquarters: Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
DELIVERY FORM Pellets	
SPECIAL CHARACTERISTICS Bio-Based, Food Contact Approval, Heat Stabilized, Transparent	
REGIONAL AVAILABILITY North America, Europe, Asia Pacific, South and Central America, Near East/Africa	

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