

Product Texts

PA,,MT,C12-020

Rilsan® Clear G170 MED is a high performance transparent polyamide resin with outstanding thermal resistance. This grade offers the highest quality and is specifically designed to meet the stringent requirements of the medical applications. Upon request letters regarding USP class VI compliance can be provided.

Main applications:

- Medical perfusion tube accessories
- Breathing mask

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	2 / *	cm ³ /10min	ISO 1133
Temperature	275 / *	°C	-
Load	2.16 / *	kg	-
^[C] Molding shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2100 / 2020	MPa	ISO 527
^[C] Yield stress	76 / 74	MPa	ISO 527
^[C] Yield strain	8 / 9	%	ISO 527
^[C] Nominal strain at break	>50 / >50	%	ISO 527
^[C] Charpy notched impact strength, +23°C	- / 13	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	- / 13	kJ/m ²	ISO 179/1eA
^[C] Shore D hardness	79 / *	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	168 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	136 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	150 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	160 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	70 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	-
^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-
^[C] Oxygen index	26 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	- / 1E11	Ohm*m	IEC 62631-3-1

Rilsan® Clear G170 MED

PA*

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[C] Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
[C] Electric strength	- / 50	kV/mm	IEC 60243-1
[C] Comparative tracking index	* / 600	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	3.8 / *	%	Sim. to ISO 62
[C] Humidity absorption	1.7 / *	%	Sim. to ISO 62
[C] Density	1050 / 1050	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	90	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	270 - 310	°C	-
Mold temperature	40 - 80	°C	-

Characteristics**Processing**

Injection Molding, Other Extrusion

Delivery form

Pellets

Special Characteristics

Transparent

Certifications

Medical Grade, US Pharmacopeia Class VI Approved

Regional Availability

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

Other text information**Injection molding****Injection molding conditions:**

- Typical melt temperature (Min / Recommended / Max) : 270°C / 290°C / 310°C.
- Typical mold temperature : 40 - 80 °C.
- Drying time and temperature (only for bags opened for more than two hours): 4 - 6 hours at 90°C.

Film extrusion**Extrusion conditions:**

- Typical melt temperature (Min / Recommended / Max) : 270°C / 280°C / 290°C.
- Drying time and temperature (only for bags opened for more than two hours): 4 - 6 hours at 90°C.