

Rilsan® BMNO MED

PA11

ARKEMA

PA11, MHL, 12-010

Rilsan® BMNO MED resin is a polyamide 11 produced from a renewable source. This natural grade dedicated to injection offers the highest quality and it is specially designed to meet the stringent requirements of the medical applications such as minimally invasive devices.

Upon request letters regarding USP Class VI compliance can be provided.

Main applications:

- Medical molded components such as needle fittings for syringes
- Minimally invasive devices

Packaging:

This grade is delivered dried in sealed packaging (44 lb 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	30 / *	cm ³ /10min	ISO 1133
Temperature	235 / *	°C	-
Load	2.16 / *	kg	-
Molding shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	- / 1280	MPa	ISO 527
Yield stress	- / 41	MPa	ISO 527
Yield strain	- / 5	%	ISO 527
Nominal strain at break	- / >50	%	ISO 527
Notched Impact Strength (Charpy), +23°C	- / 8.3	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	- / 10.5	kJ/m ²	ISO 179/1eA
Shore Hardness D (15s)	68 / -	-	ISO 868

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	189 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	50 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	145 / *	°C	ISO 75-1/-2

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1030 / 1030	kg/m ³	ISO 1183
Biobased carbon content	100	%	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 90	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	240 - 290	°C	-
Mold temperature	25 - 60	°C	-

Characteristics

Processing

Injection Molding

Certifications

Contains renewable resources, Medical, US Pharmacopeia Class VI Approved

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Delivery form

Pellets

Applications

Medical

Injection Molding

Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 240°C / 270°C / 290°C.
- Mold temperature : 25 - 60°C
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 80-90°C.

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23°C)
- ✓ Citric Acid solution (10% by mass) (23°C)