RILSAN® MED

TECHNICAL DATA SHEET

RILSAN® BMNO MED

POLYAMIDE 11 PELLET

RILSAN® BMNO MED is a polyamide 11 resin. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for injection molding and is approved in medical applications. Upon request, letters regarding USP Class VI compliance can be provided.

Designation : ISO 16396 - PA11, M1G1HL, C12-010

TYPE

PA11

MAIN APPLICATIONS

- Health - Consumable - Others
- Health - Consumable - Catheters

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Shrinkage, Parallel (t+24h)	1.1	%	ISO 294-4
Shrinkage, Normal (t+24h)	0.9	%	ISO 294-4
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	30	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 1140	MPa	ISO 178
Tensile modulus, 23°C (73°F)	- / 1280	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	- / 41	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	- / 5	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	- / 58	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	- / > 50	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	- / No break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No break		ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 8.3	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10.5	kJ/m2	ISO 179 1eA
Hardness, shore D, 15 s	- / 68		ISO 868

* Dry / Cond
Dry: Dry As Molded (DAM) if pellet / Dry if powder.
Cond: Conditionned.

RILSAN® BMNO MED

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Heat deflection temperature, 0.45 MPa	145	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	50	°C	ISO 75-1/-2
Melting temperature, 10°C/min	189	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Bio-based carbon content, Measured	98	%	ASTM D6866
Density, 23°C (73°F)	1.03	g/cm³	ISO 1183-1
Humidity absorption, At equilibrium at 23°C (73°F) / Water immersion	1.09	%	ISO 62

PACKAGING

Available packaging:
- 20 kg / 44 lb bags

SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 210°C / 230°C / 260°C (410°F / 445°F / 500°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

Headquarters: Arkema France
51, Esplanade du Général de Gaulle
92800 Puteaux – France
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on https://www.arkema.com/global/en/products/product-safety/disclaimer/ which is incorporated herein by reference and made a part hereof.
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790
arkema.com