

TECHNICAL DATA SHEET

RILSAN® FMNO

POLYAMIDE 11 PELLET

RILSAN® FMNO is a polyamide 11 resin. . It is produced from a renewable & sustainable source (castor oil). It is unreinforced and designed for injection molding or melt spinning process.

TYPE

PA11

POTENTIAL APPLICATIONS

- Consumer electronics
- Machine equipment
- Textile & leather

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding
- Melt Spinning

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Shrinkage, parallel (t+24h)	1.1	%	ISO 294-4
Shrinkage, normal (t+24h)	1.1	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 989	MPa	ISO 178
Tensile modulus, 23°C (73°F)	1220 / 1200	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	- / 5	%	ISO 527-1/-2
Yield stress, 23°C (73°F)	- / 39	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	- / >200	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	- / 54	MPa	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	No break / No break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No break / No break		ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	7 / 9	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	8 / 9	kJ/m2	ISO 179 1eA
Hardness, shore D, 15 s	- / 71		ISO 868

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

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Heat deflection temperature, 0.45 MPa	129	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	42	°C	ISO 75-1/-2
Melting temperature, 10°C/min	189	°C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, at equilibrium at 23°C (73°F) / 50%RH	0.81	%	ISO 62
Density, 23°C (73°F)	1.03	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.8	%	ISO 62

PACKAGING

- Available packaging:
- 25 kg / 55 lb bags
 - 550 kg rigid containers

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 RECOMMANDATIONS:

Please refer to specific grade's processing guidelines

- Drying Conditions: 80-90°C (175-195°F) / 4-6 hours
Only for bags opened for more than 2 hours

TEST SPECIMEN PROCESSING:

- Test specimen injection molding - Melt temperature: 220°C (430°F)
- Test specimen injection molding - Mold temperature: 40°C (105°F)

SPECIAL CHARACTERISTICS

- Bio-based

REGIONAL AVAILABILITY

World

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