+135-3858-6433 (GuangDong)
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RILSAN®

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

MAIN APPLICATIONS

- Yarn - Multifilament - Growth
- Yarn - Others
- Yarn - Bags
- Textile - Others
- Accessories
- Monofilament
- Film

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding
- Melt Spinning

RHEOLOGICAL PROPERTIES

PROPERTIES	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	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 989	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	1220 / 1200	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 5	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 39	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	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	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

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OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.81	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.8	%	ISO 62
Specific gravity, 23°C (73°F)	1.03	g/cm³	ISO 1183-1

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 CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 200°C / 220°C / 240°C (390°F / 430°F / 465°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