

TECHNICAL DATA SHEET RILSAN® BMNO TLD

POLYAMIDE 11 PELLET

RILSAN® BMNO TLD is a polyamide 11. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for injection molding and is used to produce automotive fittings & quick connectors.

Designation : ISO 16396 - PA11, M1G1HLR, C12-010

DESIGNATION

PA11

MAIN APPLICATIONS

- Footwear - Outsole/Components
- Other Sport Equipment
- Battery - Others Energies
- Accessories
- Others
- Compounding
- Industry - Distribution
- Other Transportation
- Auto - Fluid Connectors

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Release agent

RHEOLOGICAL PROPERTIES

プロパティ	価値	テスト基準
Shrinkage, Normal (t+24h)	1.0 %	ISO 294-4
Shrinkage, Parallel (t+24h)	1.1 %	ISO 294-4
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	30 cm ³ /10min	ISO 1133

RILSAN® BMNO TLD

MECHANICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Tensile modulus, 23°C (73°F), 1 mm/min	1320 / 1250 MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 41 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 5 %	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 1140 MPa	ISO 178
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/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10.5 kJ/m ²	ISO 179 1eA
Hardness, Shore D, 15 s	- / 68	ISO 868

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

THERMAL PROPERTIES

プロパティ	価値	テスト基準
Melting temperature, 10°C/min	189 °C	ISO 11357-1/-3
Vicat softening temperature, 50N at 50°C/h	160 °C	ISO 306
Heat deflection temperature, 0.45 MPa	145 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	50 °C	ISO 75-1/-2

ELECTRICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Surface resistivity, 23°C (73,4°F)	- / 1.0E+14 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+12 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 30	IEC 60243-1
Relative permittivity, 100Hz	- / 4	IEC 60250
Relative permittivity, 1Mhz	- / 3	IEC 60250
Dissipation factor, 100Hz	- / 598	IEC 60250
Dissipation factor, 1Mhz	- / 598	IEC 60250

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OTHER PROPERTIES

プロパティ	価値	テスト基準
Specific gravity, 23°C (73°F)	1.03 g/cm ³	ISO 1183-1
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.8 %	ISO 62
Water absorption, 23°C(73°F), immersion, equilibrium	1.9 %	ISO 62

包装

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 25 kg / 55 lb bags

賞味期限

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.

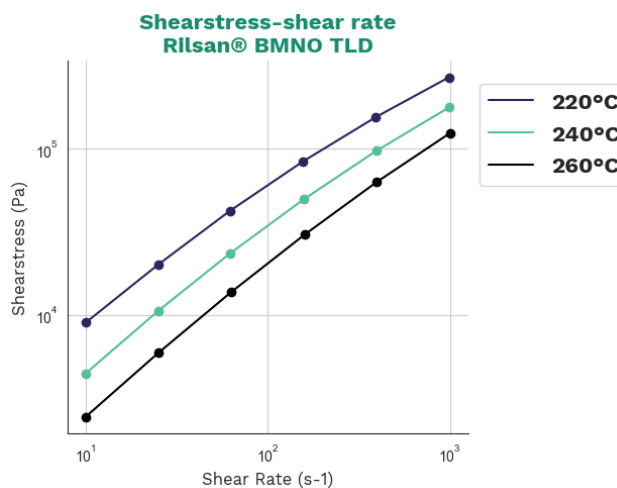
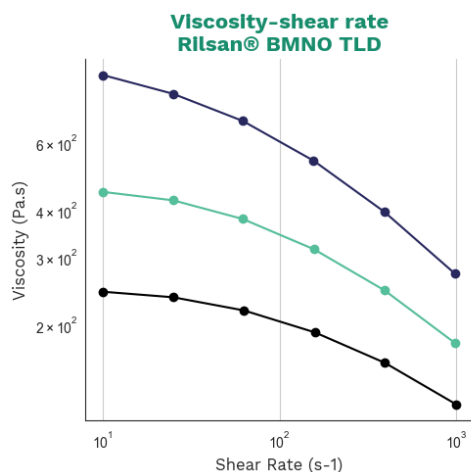
PROCESSING CONDITIONS:

- 典型的な溶融温度 (最小 / 推奨 / 最大) - 射出成形: 210°C / 230°C / 260°C (410°F / 445°F / 500°F)
- 典型的な金型温度 - 射出成形: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

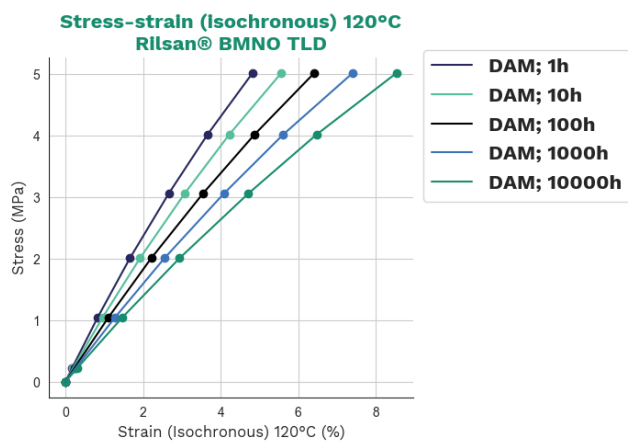
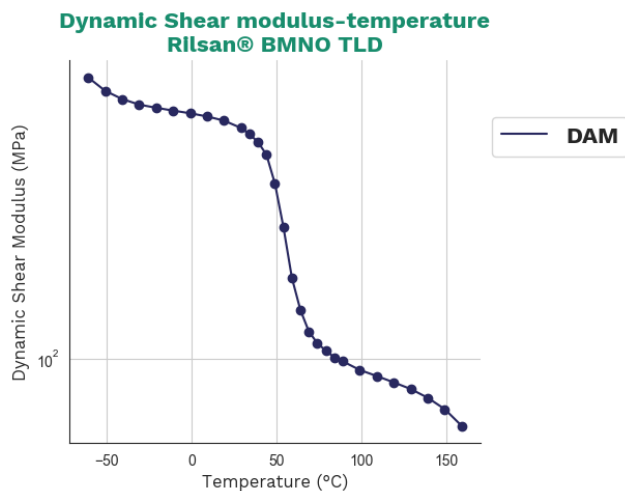
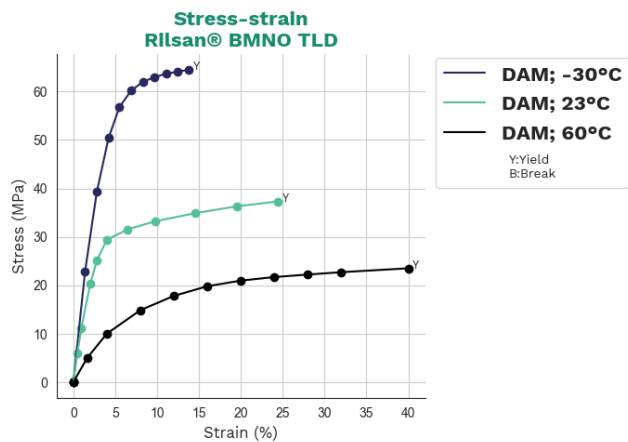
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

DIAGRAMS



RILSAN® BMNO TLD



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