

## TECHNICAL DATA SHEET

# RILSAN® BMN BLACK TLD

## POLYAMIDE 11 PELLET

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

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

### DESIGNATION

PA11

### MAIN APPLICATIONS

- Cable Ties
- Industry - Others
- Industry - Distribution
- Auto - Fluid Connectors
- Auto - Others Injection
- Heavy Truck - Air Brake 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, Parallel (t+24h)	1.5 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.5 %	ISO 294-4
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	36.5 cm <sup>3</sup> /10min	ISO 1133

## MECHANICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Hardness, Shore D, 15 s	- / 72	ISO 868
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
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 6 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 45 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1500 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 6 kJ/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 7 kJ/m <sup>2</sup>	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 1280 MPa	ISO 178

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

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COND: Conditionned.

## THERMAL PROPERTIES

プロパティ	価値	テスト基準
Vicat softening temperature, 50N at 50°C/h	160 °C	ISO 306
Yellow card available	yes	
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	188 °C	ISO 11357-1/-3

## 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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COND: Conditionned.

## OTHER PROPERTIES

プロパティ	価値	テスト基準
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
Specific gravity, 23°C (73°F)	1.03 g/cm <sup>3</sup>	ISO 1183-1

## 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:

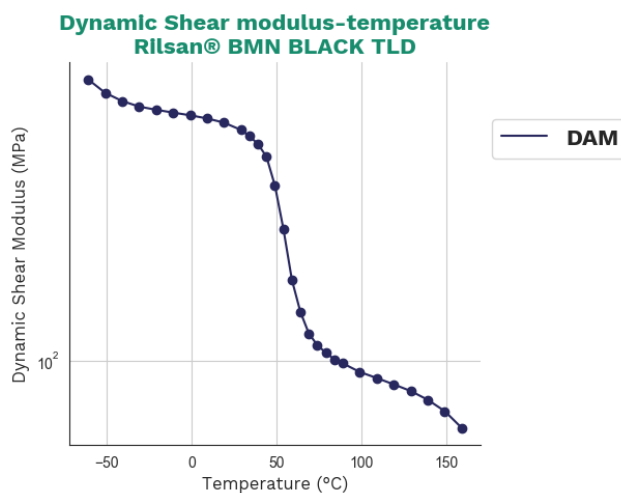
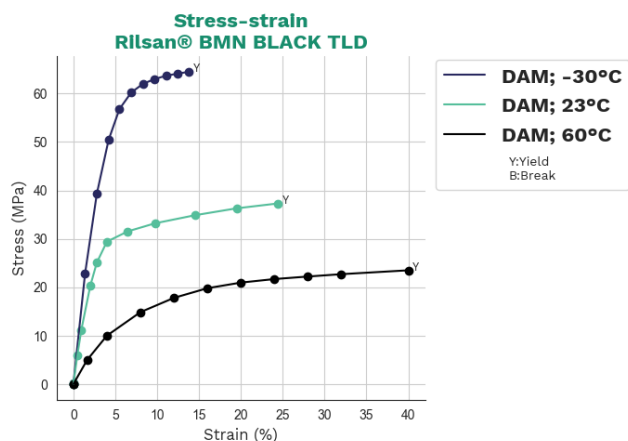
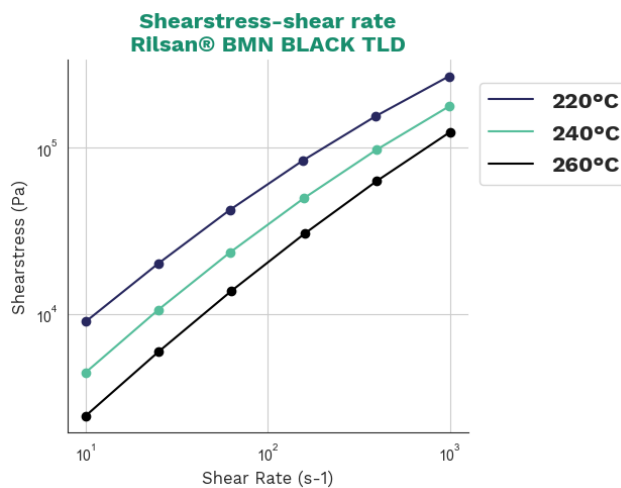
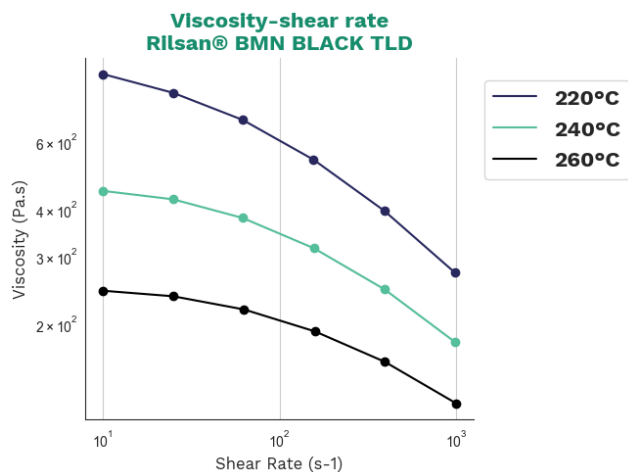
- 典型的な溶融温度 (最小 / 推奨 / 最大) - 射出成形: 210°C / 230°C / 260°C (410°F / 445°F / 500°F)
- 典型的な金型温度 - 射出成形: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

# RILSAN® BMN BLACK TLD

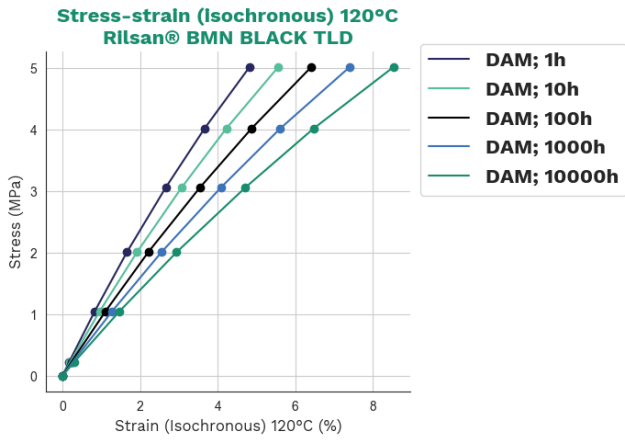
## SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

## DIAGRAMS



# RILSAN® BMN BLACK TLD



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