

TECHNICAL DATA SHEET

RILSAN® BESNO TL

POLYAMIDE 11 PELLET

RILSAN® BESNO TL is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for tube extrusion.

Designation : ISO 16396 - PA11, EG1HL, C22-010

DESIGNATION

PA11

MAIN APPLICATIONS

- Winter Sports - Ski
- Film And Membrane - Others
- Yarn - Multifilament - Growth
- Footwear - Insole/Midsole/Foam
- Outdoor - Equipment/Bicycle/Racket
- Outdoor - Apparel
- Downstream - Natural Gas Fittings
- Performance Wire
- CPI - Others
- Compounding
- Monofilament
- Hoses & Tubes - Pneumatics
- Industry - Distribution
- Other Transportation
- Auto - Others Extrusion
- Auto - Metal Tube Coating
- Heavy Truck H2 & Gas Lines And Tanks
- Heavy Truck - Air Brake Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Sheet Extrusion
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	1 cm ³ /10min	ISO 1133

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MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
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	- / 5 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 38 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1280 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 11 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 12 kJ/m ²	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 1085 MPa	ISO 178

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
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	186 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
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
Dielectric stress, 23°C (73,4°F)	- / 30	IEC 60243-1
Relative permittivity, 100Hz	- / 3	IEC 60250
Relative permittivity, 1Mhz	- / 3	IEC 60250
Dissipation factor, 100Hz	- / 308	IEC 60250
Dissipation factor, 1Mhz	- / 308	IEC 60250
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112

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OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium	1.9 %	ISO 62
Bio-based carbon content, Measured	99 %	ASTM D6866
Specific gravity, 23°C (73°F)	1.02 g/cm ³	ISO 1183-1

PACKAGING

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

- 20 kg / 44 lb bags
- 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.

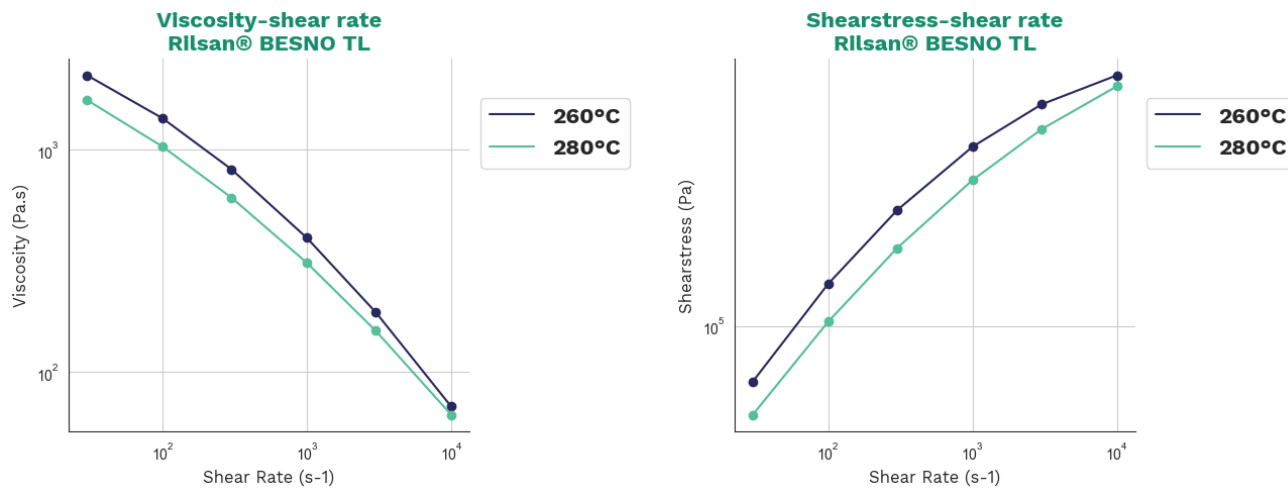
PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 250°C / 270°C (445°F / 480°F / 520°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

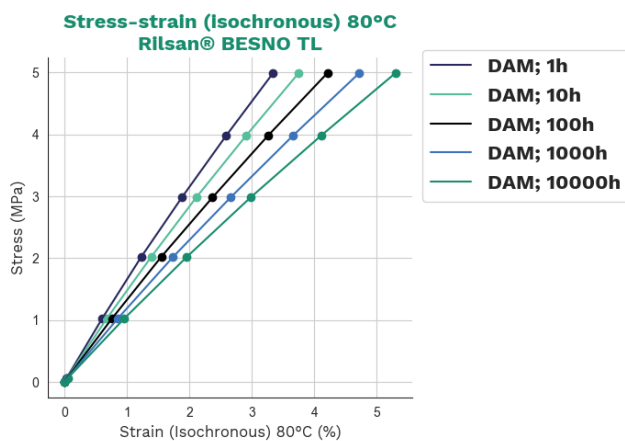
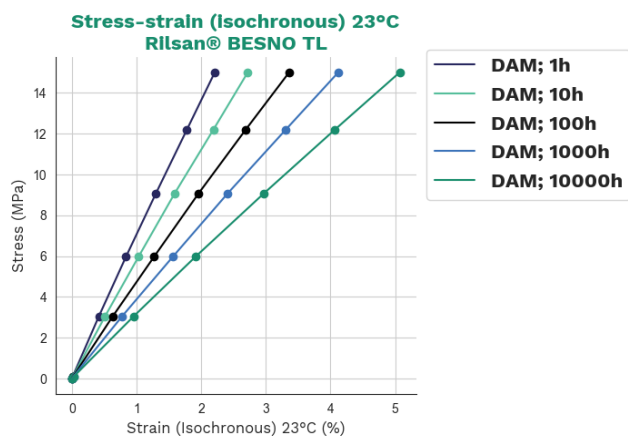
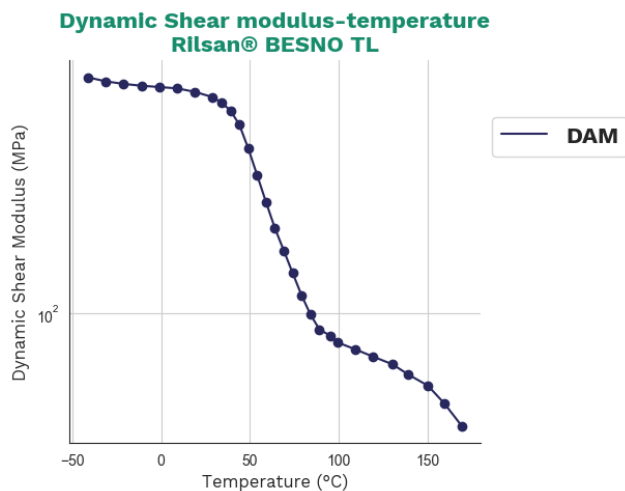
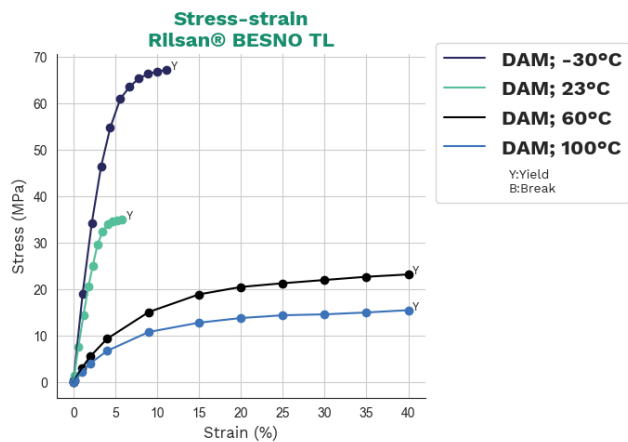
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

DIAGRAMS



RILSAN® BESNO TL



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