

TECHNICAL DATA SHEET

RILSAN® BECNO TL

POLYAMIDE 11 PELLET

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

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

DESIGNATION

PA11

MAIN APPLICATIONS

- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General

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)	30 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 70	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 / > 50 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	5 / 5 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	43 / 42 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	1470 / 1330 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 9 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10 kJ/m ²	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 582 MPa	ISO 178

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

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THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	160 °C	ISO 306
Heat deflection temperature, 0.45 MPa	150 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	55 °C	ISO 75-1/-2
Melting temperature, 10°C/min	189 °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
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	- / 3	IEC 60250
Relative permittivity, 1Mhz	- / 3	IEC 60250
Dissipation factor, 100Hz	- / 274	IEC 60250
Dissipation factor, 1Mhz	- / 274	IEC 60250

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OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium	1.9 %	ISO 62
Specific gravity, 23°C (73°F)	1.03 g/cm ³	ISO 1183-1

PACKAGING

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

- 25 kg / 55 lb bags

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

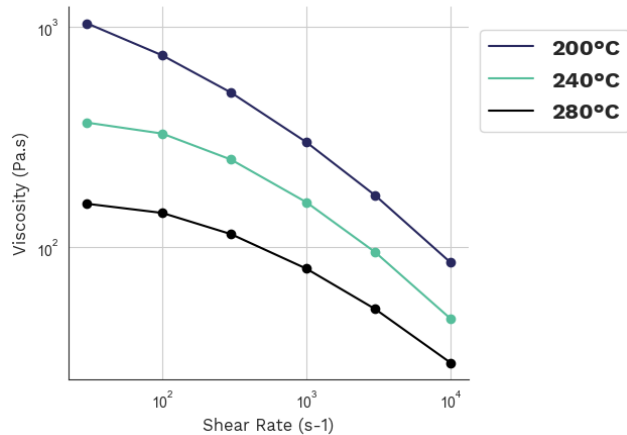
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

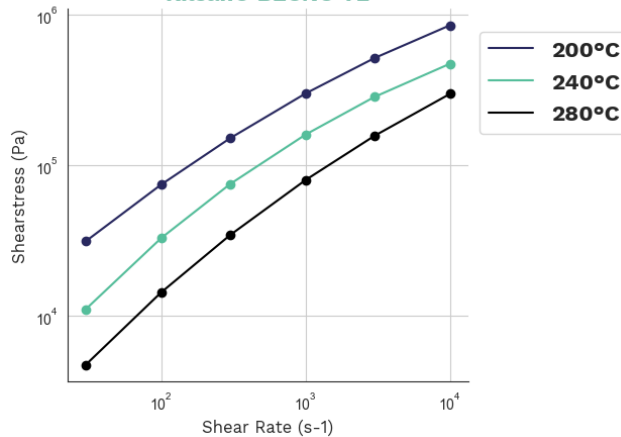
RILSAN® BECNO TL

DIAGRAMS

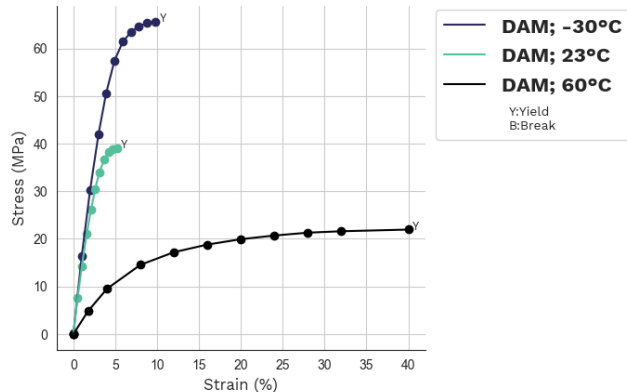
Viscosity-shear rate
Rilsan® BECNO TL



Shearstress-shear rate
Rilsan® BECNO TL



Stress-strain
Rilsan® BECNO TL



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