+135-3858-6433 (GuangDong)
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RILSAN®

TECHNICAL DATA SHEET

RILSAN® BESNO TL NB

POLYAMIDE 11 PELLET

RILSAN® BESNO TL NB is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for tube extrusion and does not contain any optical brightener.

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

TYPE

PA11

MAIN APPLICATIONS

- Winter Sports - Ski
- Hoses & Tubes

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Sheet Extrusion
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	1	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 1085	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1280	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	- / 38	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50	%	ISO 527-1/-2
Hardness, Shore D, 15 s	- / 72		ISO 868
Charpy notched impact strength, 23°C (73°F)	- / 11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 12	kJ/m2	ISO 179 1eA
Charpy unnotched impact strength, 23°C (73°F)	- / No Break	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break	kJ/m2	ISO 179 1eU

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

ARKEMA

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
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
Melting temperature, 10°C/min	186	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 1.0E+14	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 1.0E+12	Ohm.m	IEC 62631-3-1
Dielectric stress, 23°C (73°F)	- / 30	kV/mm	IEC 60243-1
Relative permittivity, 100Hz	3 / -		IEC 62631-2-1
Relative permittivity, 1Mhz	3 / -		IEC 62631-2-1
Dissipation factor, 100Hz	308 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	183 / -	E-4	IEC 62631-2-1
Comparative tracking index, 23°C (73°F)	- / 600		IEC 60112

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	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/cm³	ISO 1183-1

PACKAGING

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

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DIAGRAMS