

TECHNICAL DATA SHEET

RILSAN® KNO T3L

POLYAMIDE 11 PELLET

RILSAN® KNO T3L is a polyamide 11 resin. It is produced from a renewable and a sustainable source (castor oil). This natural color grade is specially designed for injection molding.

Designation : PA11,M,C16-010

TYPE

PA11

MAIN APPLICATIONS

- Equipment

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	25	cm³/10min	ISO 1133
Shrinkage, Parallel (t+24h)	1.29	%	ISO 294-4
Shrinkage, Normal (t+24h)	1.30	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	1200 / 1000	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	1300 / 1100	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	42 / 40	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	24 / 26	%	ISO 527-1/-2
Stress at break, 23°C (73°F), 50 mm/min	64 / 64	MPa	ISO 527-1/-2
Strain at break, 23°C (73°F), 50 mm/min	> 280 / > 280	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	No Break / No Break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No Break / No Break		ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	9 / 11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	10 / 10	kJ/m2	ISO 179 1eA
Taber abrasion (Wheel H18, Load 10N)	13 / -	mg/1000 cycles	ISO 23794
Hardness, Shore D, Instantaneous	77 / 74		ISO 868
Hardness, Shore D, 15 s	71 / 70		ISO 868

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

RILSAN® KNO T3L

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	188	°C	ISO 11357-1/-3
Heat deflection temperature, 0.45 MPa	113	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	43	°C	ISO 75-1/-2

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Bio-based carbon content, Measured	100	%	ASTM D6866
Specific gravity, 23°C (73°F)	1.025	g/cm ³	ISO 1183-1
Water absorption, 23°C (73°F), immersion, equilibrium	1.8	%	ISO 62
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.8	%	ISO 62

PACKAGING

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: 240°C / 250°C / 260°C (465°F / 480°F / 500°F)
- Typical mold temperature - Injection molding: 40-80°C (105-175°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based

REGIONAL AVAILABILITY

Asia Pacific, Europe, Middle East