

## TECHNICAL DATA SHEET

# RILSAN® KNO

## POLYAMIDE 11 PELLET

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

### DESIGNATION

PA11

### MAIN APPLICATIONS

- Winter Sports - Ski Boots
- Yarn - Monofilament - Growth
- Beauty - Packaging
- Accessories
- Compounding
- Hoses & Tubes
- Auto - Others Injection

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

- Injection Molding

## RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Shrinkage, Parallel (t+24h)	1.1 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.1 %	ISO 294-4

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Hardness, Shore D, 15 s	- / 73	ISO 868
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 / -	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	- / 4 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 37 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1250 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 11 kJ/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 13 kJ/m <sup>2</sup>	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 1110 MPa	ISO 178

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

## THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	189 °C	ISO 11357-1/-3

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## OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Bio-based carbon content, Measured	98 %	ASTM D6866
Specific gravity, 23°C (73°F)	1.03 g/cm <sup>3</sup>	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: 250°C / 270°C / 290°C (480°F / 520°F / 555°F)
- Typical mold temperature - Injection molding: 40-90°C (105-195°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

## SPECIAL CHARACTERISTICS

- Bio-based

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