

TECHNICAL DATA SHEET

RILSAN® TIEFLEX R463 NAT TL

POLYAMIDE ALLOY PELLET

RILSAN® TIEFLEX R463 NAT TL is a polyamide alloy. It is partially produced from a renewable & sustainable source (castor oil). This grade is designed for multilayer air brake application (structural tie layer).

DESIGNATION

PA*

MAIN APPLICATIONS

- Heavy Truck - Air Brake Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	8 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	500 / 330 MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 28 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 50 %	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2
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
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 8 kJ/m ²	ISO 179 1eA

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

THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	214 °C	ISO 11357-1/-3

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.08 g/cm ³	ISO 1183-1

RILSAN® TIEFLEX R463 NAT TL

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: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based

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