

## TECHNICAL DATA SHEET

# RILSAN® TIEFLEX S442 NAT TL

## POLYAMIDE ALLOY PELLET

RILSAN® TIEFLEX S442 NAT TL is a polyamide alloy. It is partially produced from a renewable & sustainable source (castor oil). This grade is designed for multilayer automotive and trucks fuel lines (tie layer).

### DESIGNATION

PA\*

### MAIN APPLICATIONS

- Auto - Gasoline 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)	4.6 cm <sup>3</sup> /10min	ISO 1133

## MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	600 / - MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 31 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 40 %	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50 %	ISO 527-1/-2

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

## THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melting temperature, 10°C/min	217 °C	ISO 11357-1/-3

## OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.06 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

# RILSAN® TIEFLEX S442 NAT TL

## 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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