

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).

TYPE

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	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	4.6	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.06	g/cm³	ISO 1183-1

PACKAGING

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