

TECHNICAL DATA SHEET

RILSAN® TIEFLEX S452 NAT T6L

POLYAMIDE ALLOY PELLET

RILSAN® TIEFLEX S452 NAT T6L 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 (structural tie layer).

TYPE

PA*

MAIN APPLICATIONS

- Auto - In Tank & Fuel Venting 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)	3.7	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	685 / 515	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 33	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 31	%	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / 25	%	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)	- / 95	kJ/m²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 6.5	kJ/m²	ISO 179 1eA

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

THERMAL PROPERTIES

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

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OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.09	g/cm ³	ISO 1183-1
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	1.2	%	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	2.9	%	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: 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