

TECHNICAL DATA SHEET

RILSAMID® AESNO P40 TL

POLYAMIDE 12 PELLET

RILSAMID® AESNO P40 TL is a polyamide 12 compound. This natural plasticized grade is designed for tube extrusion, including air brake tubing (PHL).

Designation : ISO 16396 - PA12-P, EG1HL, C22-004

DESIGNATION

PA12-P

MAIN APPLICATIONS

- Oil And Gas - Others
- Upstream - Offshore Umbilicals
- Cables Antitermites
- Performance Wire
- Cable Ties
- Hoses & Tubes - Pneumatics
- Hoses & Tubes
- Industry - Distribution
- Auto Battery Cooling
- Auto - Gasoline Lines
- Other Transportation
- Auto - Others Extrusion
- Heavy Truck - Air Brake Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	16 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
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
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50 %	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	24 / 26 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	26 / 23 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	430 / 380 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 5 kJ/m ²	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 390 MPa	ISO 178

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

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THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	130 °C	ISO 306
Heat deflection temperature, 0.45 MPa	90 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	46 °C	ISO 75-1/-2
Melting temperature, 10°C/min	174 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 5.0E+11 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+9 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 24	IEC 60243-1

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

OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Water absorption, 23°C (73°F), immersion, equilibrium	1.2 %	ISO 62
Specific gravity, 23°C (73°F)	1.03 g/cm ³	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

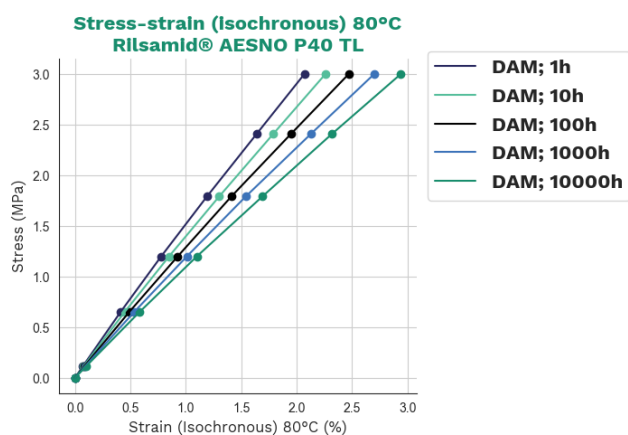
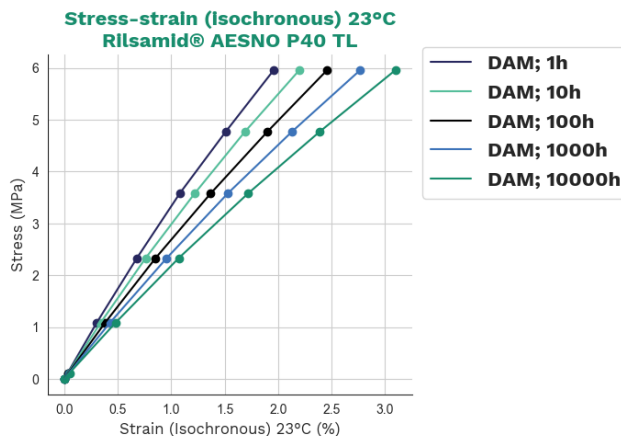
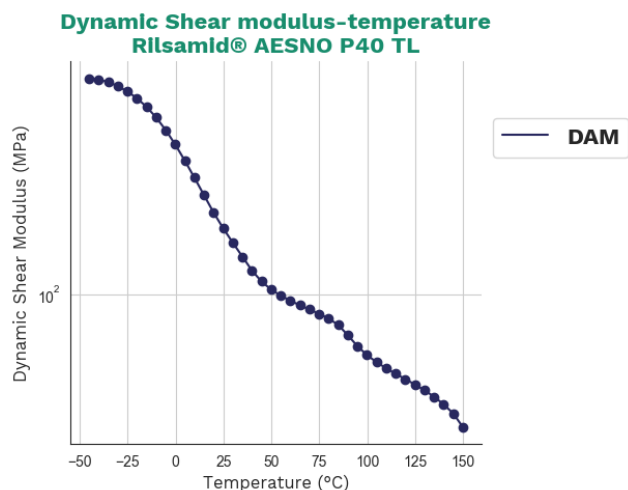
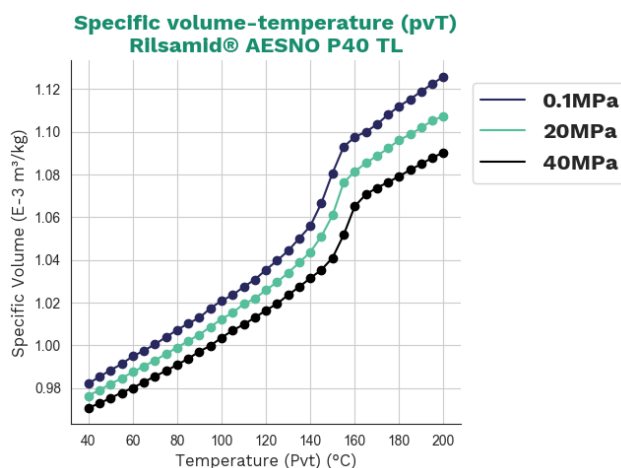
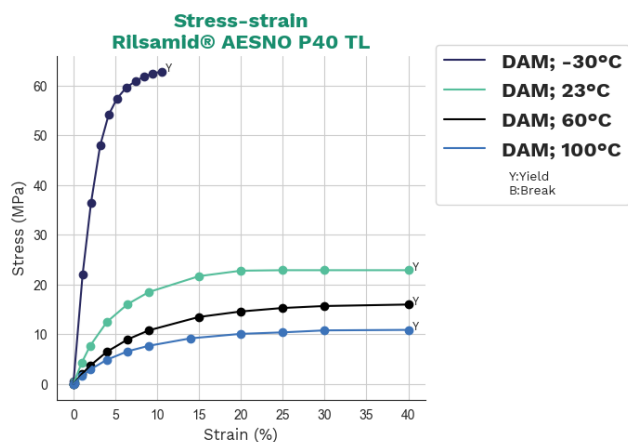
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 250°C / 270°C (445°F / 480°F / 520°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

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DIAGRAMS



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