RILSAMID®

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

TYPE

PA12-P

MAIN APPLICATIONS

- performance wire
- cable ties
- hoses & tubes - pneumatics
- hoses & tubes
- industry - distribution
- heavy truck - air brake lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	16	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	- / 390	MPa	ISO 178
Tensile modulus, 23°C (73°F)	430 / 380	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	24 / 26	%	ISO 527-1/-2
Yield stress, 23°C (73°F)	26 / 23	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F)	> 50 / > 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)	- / 5	kJ/m2	ISO 179 1eA
Stress at break, 23°C (73°F)	- / 50	MPa	ISO 527-1/-2

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

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	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	TYPICAL VALUE	UNIT	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 Strength, 23°C (73,4°F)	- / 24	kV/mm	IEC 60243-1

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

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.03	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.2	%	ISO 62

PACKAGING

Available packaging:
- 25 kg / 55 lb bags

SHELF LIFE

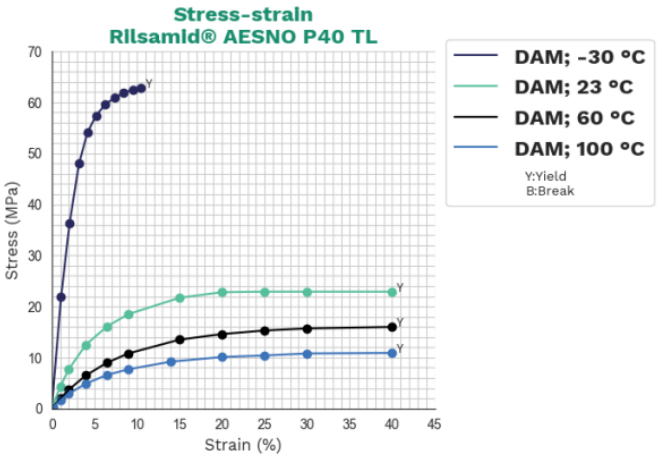
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

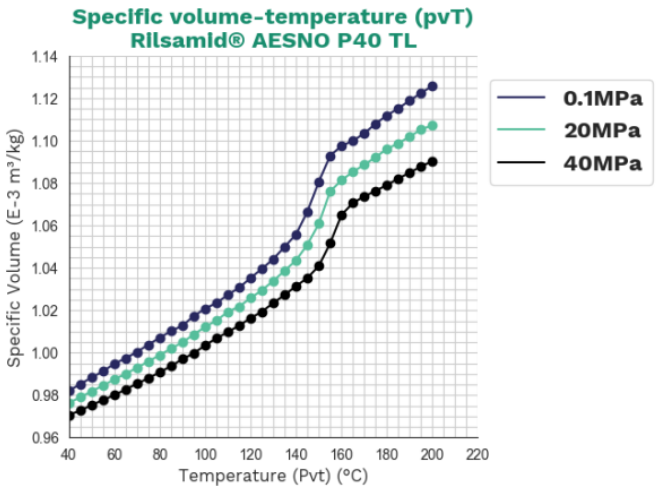
PROCESSING CONDITIONS:

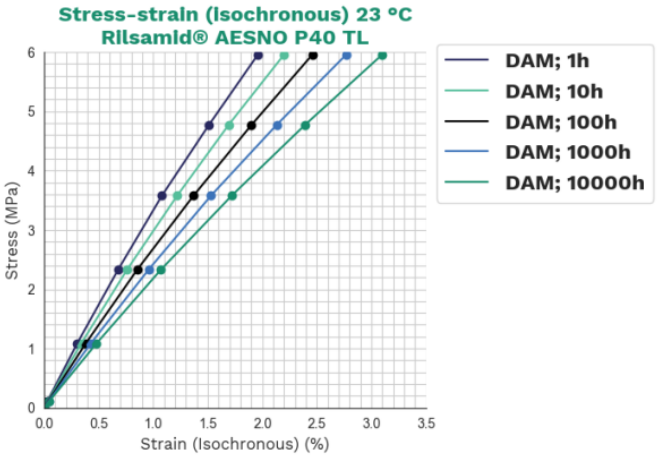
- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

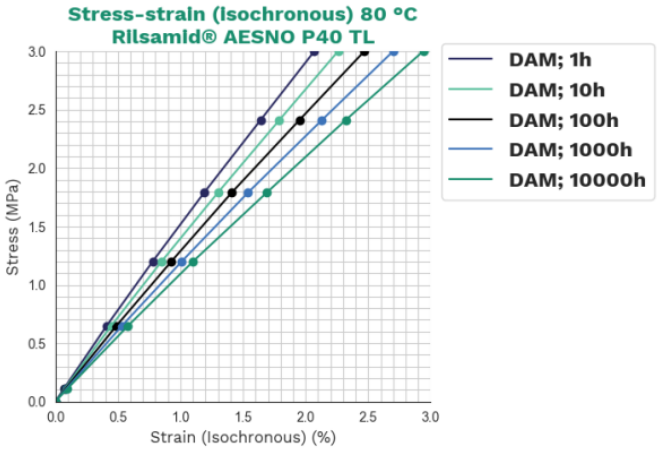
DIAGRAMS

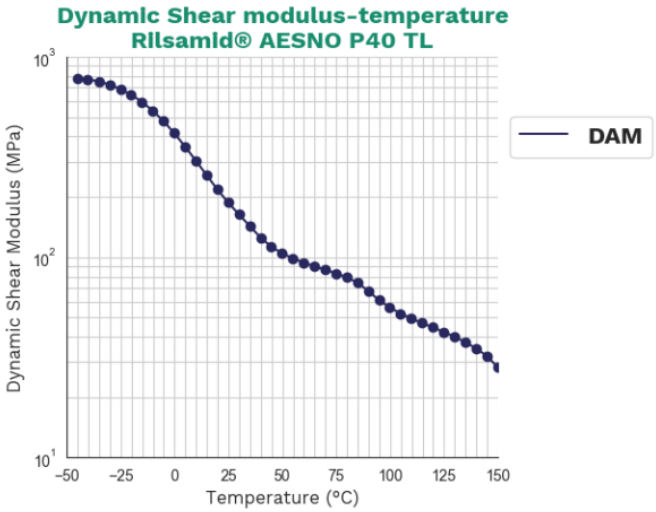
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Headquarters: Arkema France
51, Esplanade du Général de Gaulle
92800 Puteaux – France
T +33 (0)1 49 00 80 80

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