RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® AMNO TLD

POLYAMIDE 12 PELLET

RILSAMID® AMNO TLD is a polyamide 12 compound. This natural grade is designed for injection molding.

Designation : ISO 16396 - PA12, M1G1HLR, C12-010

TYPE

PA12

MAIN APPLICATIONS

- compounding
- industry - others
- industry - distribution
- auto - fluid connectors
- auto - others injection

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Release agent

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	57	cm³/10min	ISO 1133
Shrinkage, parallel (t+24h)	1.2	%	ISO 294-4
Shrinkage, normal (t+24h)	1.4	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F)	1450 / 1170	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	7 / 7	%	ISO 527-1/-2
Yield stress, 23°C (73°F)	42 / 38	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)	- / 9	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 5	kJ/m2	ISO 179 1eA
Stress at break, 23°C (73°F)	- / 64	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	142	°C	ISO 306
Heat deflection temperature, 0.45 MPa	135	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	55	°C	ISO 75-1/-2
Melting temperature, 10°C/min	178	°C	ISO 11357-1/-3
Burning behavior, nominal thickness 1.5 mm	HB		IEC 60695-11-10
Burning behavior, nominal thickness 3.0 mm	V-2		IEC 60695-11-10
Yellow card available	YES		

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 1.0E+14	ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+12	ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600		IEC 60112
Relative permittivity, 100Hz	- / 4		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 3		IEC 62631-2-1
Dissipation factor, 100Hz	779 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	290 / -	E-4	IEC 62631-2-1
Dielectric Strength, 23°C (73,4°F)	- / 30	kV/mm	IEC 60243-1

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COND: Conditionned.

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, at equilibrium at 23°C (73°F) / 50%RH	0.7	%	ISO 62
Density, 23°C (73°F)	1.02	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.8	%	ISO 62

PACKAGING

Available packaging:
- 25 kg / 55 lb bags

SHELF LIFE

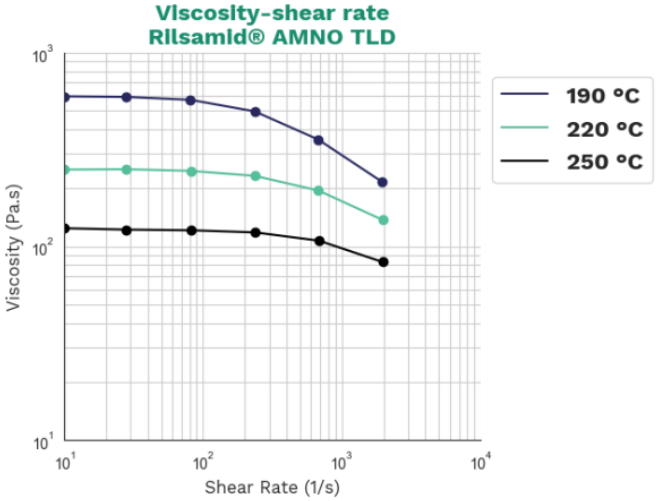
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

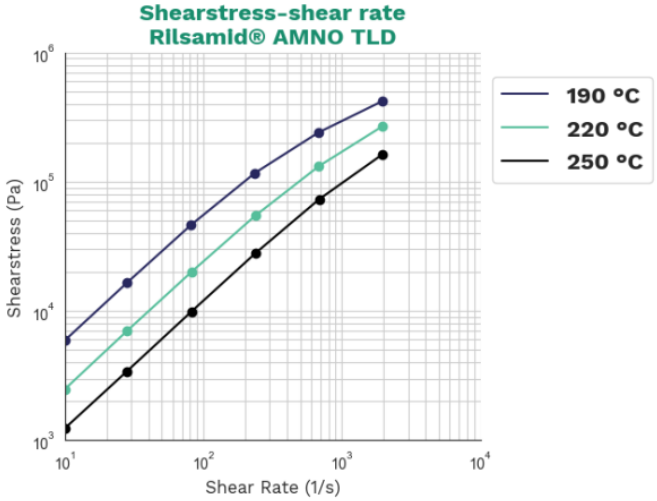
PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 230°C / 260°C / 290°C (445°F / 500°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

DIAGRAMS

RILSAMID® AMNO TLD





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