

TECHNICAL DATA SHEET

RILSAMID® AMNO P20 TLD

POLYAMIDE 12 PELLET

RILSAMID® AMNO P20 TLD is a polyamide 12 compound. This natural plasticized grade is designed for injection molding.

Designation : ISO 16396 - PA12-P, M1G1HLR, C12-005

DESIGNATION

PA12-P

MAIN APPLICATIONS

- Industry - Distribution
- Auto - Fluid Connectors
- Auto - Others Injection

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer
- Release agent

RHEOLOGICAL PROPERTIES

プロパティ	価値	テスト基準
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	44 cm ³ /10min	ISO 1133
Shrinkage, Parallel (t+24h)	1.3 %	ISO 294-4
Shrinkage, Normal (t+24h)	1.5 %	ISO 294-4

MECHANICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Charpy unnotched impact strength, 23°C (73°F)	No Break / No Break	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	No Break / 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	20 / 20 %	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	31 / 30 MPa	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	620 / 550 MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	- / 9 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	3 / 4 kJ/m ²	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 500 MPa	ISO 178

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

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THERMAL PROPERTIES

プロパティ	価値	テスト基準
Vicat softening temperature, 50N at 50°C/h	134 °C	ISO 306
Heat deflection temperature, 0.45 MPa	130 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	48 °C	ISO 75-1/-2
Melting temperature, 10°C/min	173 °C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

プロパティ	DRY / COND VALUE*	テスト基準
Surface resistivity, 23°C (73,4°F)	- / 1.0E+12 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 1.0E+10 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 26	IEC 60243-1
Relative permittivity, 100Hz	- / 8	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 2010	IEC 60250
Dissipation factor, 1Mhz	- / 2010	IEC 60250

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OTHER PROPERTIES

プロパティ	価値	テスト基準
Water absorption, 23°C(73°F), immersion, equilibrium	1.4 %	ISO 62
Specific gravity, 23°C (73°F)	1.02 g/cm ³	ISO 1183-1

包装

This grade is delivered dried in sealed packaging ready to be processed. Available packaging:

- 25 kg / 55 lb bags

賞味期限

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.

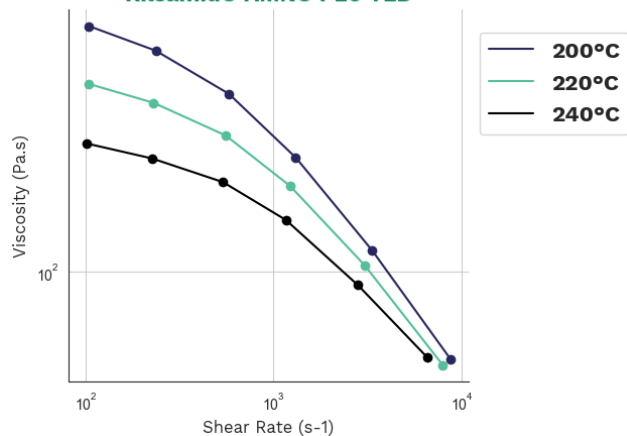
PROCESSING CONDITIONS:

- 典型的な溶融温度 (最小 / 推奨 / 最大) - 射出成形: 210°C / 230°C / 260°C (410°F / 445°F / 500°F)
- 典型的な金型温度 - 射出成形: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

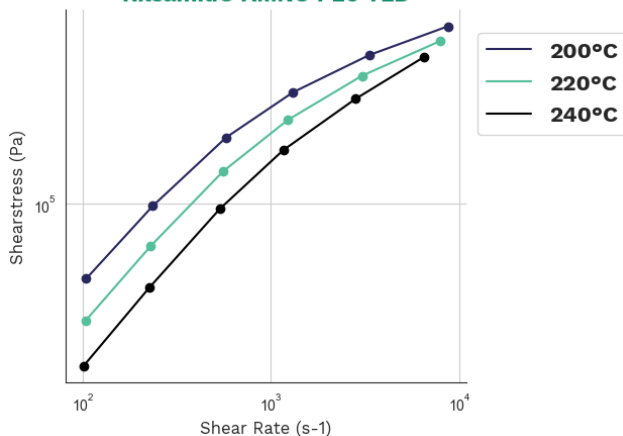
RILSAMID® AMNO P20 TLD

DIAGRAMS

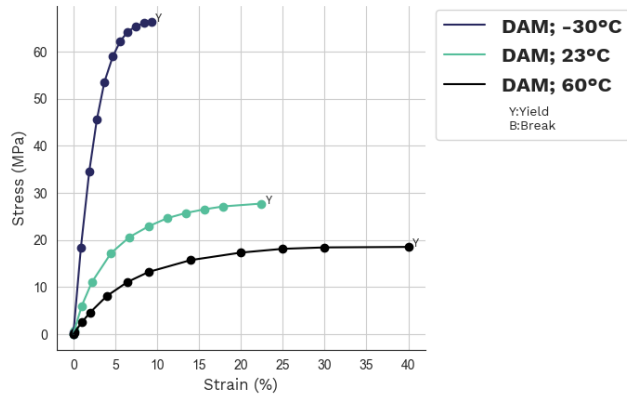
Viscosity-shear rate
Rilsamid® AMNO P20 TLD



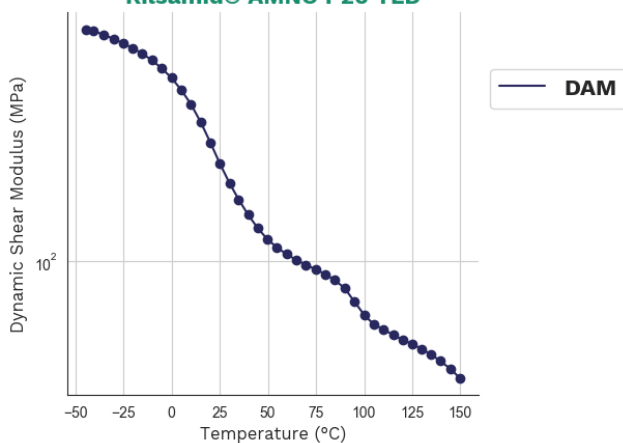
Shearstress-shear rate
Rilsamid® AMNO P20 TLD



Stress-strain
Rilsamid® AMNO P20 TLD



Dynamic Shear modulus-temperature
Rilsamid® AMNO P20 TLD



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