RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® AZM 23 BLACK T6LD

POLYAMIDE 12 PELLET

RILSAMID® AZM 23 BLACK T6LD resin is a polyamide 12 compound. This glass fiber reinforced grade is designed for injection molding and is used to produce automotive fittings & quick connectors.

Designation : ISO 16396 - PA12, GF23, M1G1HLR, C16-060

TYPE

PA12-GF23

MAIN APPLICATIONS

- auto - fluid connectors
- heavy truck - air brake connectors

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 / 5 kg (455°F / 11 lb)	13	cm^3/10min	ISO 1133
Shrinkage, parallel (t+24h)	0.2	%	ISO 294-4
Shrinkage, normal (t+24h)	0.4	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F)	5500 / 5100	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	101 / 105	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	3 / 3.5	%	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 4490	MPa	ISO 178
Charpy unnotched impact strength, 23°C (73°F)	66 / 77	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	66 / 83	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 15	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	8 / 12	kJ/m2	ISO 179 1eA
Strain at break, 23°C (73°F)	5 / 5.2	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	- / 91	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
Melting temperature, 10°C/min	179	°C	ISO 11357-1/-3
Vicat softening temperature, 50N at 50°C/h	165	°C	ISO 306
Heat deflection temperature, 0.45 MPa	173	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	165	°C	ISO 75-1/-2
Thermal degradation temperature, Under air at 10°C/min (1%_wt_Loss)	222	°C	ISO 11358-1
Thermal degradation temperature, Under nitrogen at 10°C/min (1%_wt_Loss)	223	°C	ISO 11358-1

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Comparative tracking index, 23°C (73,4°F)	- / 600		IEC 60112
Relative permittivity, 100Hz	- / 5		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 5		IEC 62631-2-1
Dissipation factor, 100Hz	1170 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	364 / -	E-4	IEC 62631-2-1

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

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Water absorption, at equilibrium at 23°C (73°F) / 50%RH	0.5	%	ISO 62
Density, 23°C (73°F)	1.18	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	1.3	%	ISO 62

PACKAGING

Available packaging:
- 25 kg / 55 lb bags
- 454 kg / 1000 lb rigid containers

SHELF LIFE

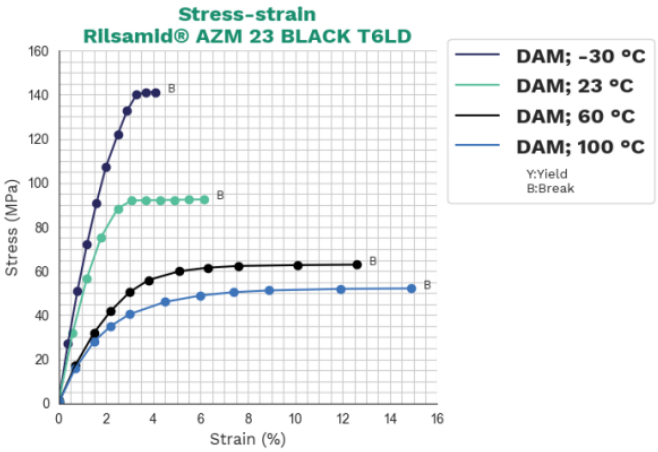
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

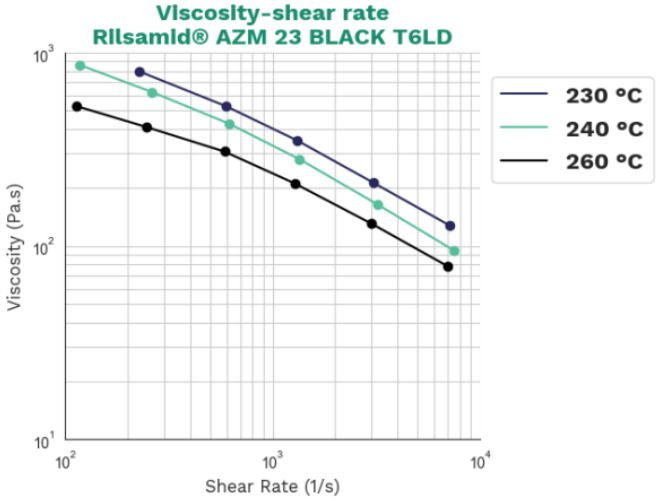
PROCESSING CONDITIONS:

- 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: 40-90°C (105-195°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

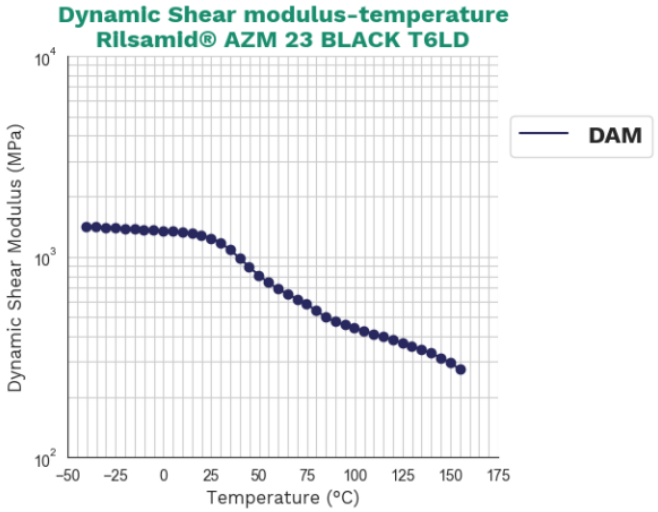
DIAGRAMS

RILSAMID® AZM 23 BLACK T6LD









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