RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® AZM 30 BLACK T6LD

POLYAMIDE 12 PELLET

RILSAMID® AZM 30 BLACK T6LD resin is a polyamide 12 compound. This glass fiber reinforced grade is designed for injection molding and is a market standard to produce automotive fittings & quick connectors.

Designation : ISO 16396 - PA12, GF30, M1G1HLR, C18-070

TYPE

PA12-GF30

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)	7	cm^3/10min	ISO 1133
Shrinkage, parallel (t+24h)	0.2	%	ISO 294-4
Shrinkage, normal (t+24h)	0.6	%	ISO 294-4

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	6100 / 5900	MPa	ISO 178
Tensile modulus, 23°C (73°F)	6950 / 6650	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	115 / 110	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	3.3 / 3.5	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	112 / 100	MPa	ISO 527-1/-2
Strain at break, 23°C (73°F)	4.4 / 5.1	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	80 / 76	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	84 / 80	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	21 / 17	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	13 / 11	kJ/m2	ISO 179 1eA

*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	177	°C	ISO 11357-1/-3
Vicat softening temperature, 50N at 50°C/h	165	°C	ISO 306
Heat deflection temperature, 0.45 MPa	176	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	163	°C	ISO 75-1/-2
Thermal degradation temperature, Under air at 10°C/min (1%_wt_Loss)	227	°C	ISO 11358-1
Thermal degradation temperature, Under nitrogen at 10°C/min (1%_wt_Loss)	224	°C	ISO 11358-1
Burning behavior, nominal thickness 1.5 mm	HB		IEC 60695-11-10
Burning behavior, nominal thickness 3.0 mm	HB		IEC 60695-11-10
Burning behavior, nominal thickness 6.0 mm	HB		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+11	ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 600		IEC 60112
Dielectric Strength, 23°C (73,4°F)	35 / 35	kV/mm	IEC 60243-1
Relative permittivity, 100Hz	4 / -		IEC 62631-2-1
Relative permittivity, 1Mhz	3 / -		IEC 62631-2-1
Dissipation factor, 100Hz	664 / -	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	274 / -	E-4	IEC 62631-2-1

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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	0.5	%	ISO 62
Density, 23°C (73°F)	1.24	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

RILSAMID® AZM 30 BLACK T6LD

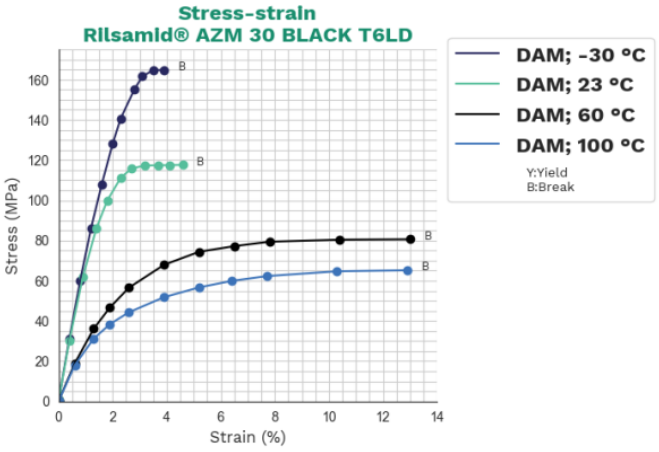
SHELF LIFE

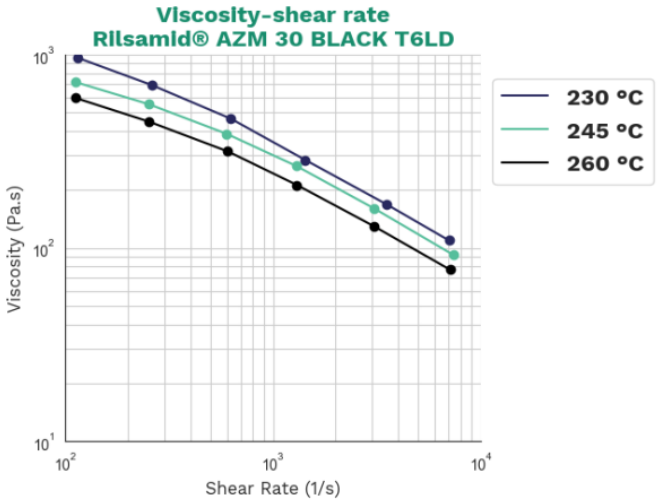
Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

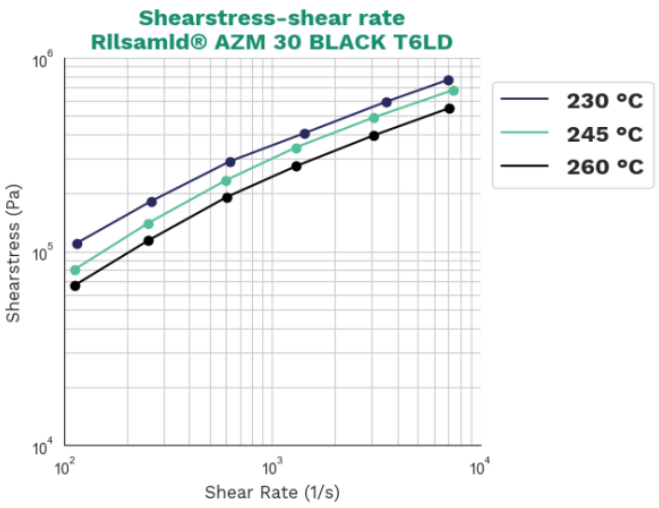
PROCESSING CONDITIONS:

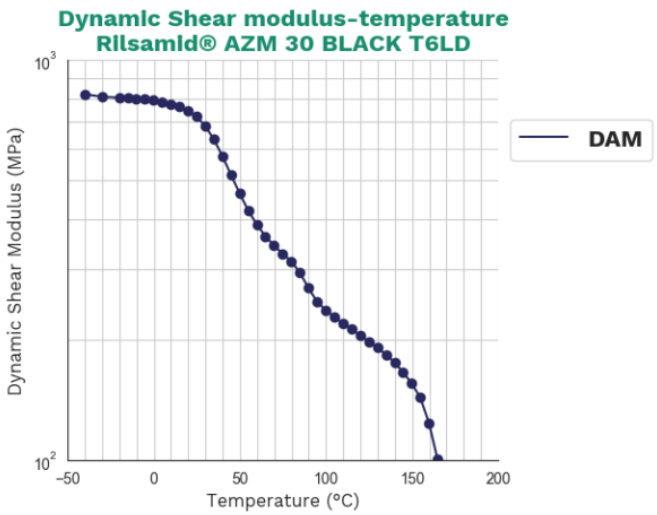
- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 250°C / 270°C / 290°C (480°F / 520°F / 555°F)
- Typical mold temperature - Injection molding: 40-90°C (105-195°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

DIAGRAMS









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