RILSAMID®

TECHNICAL DATA SHEET

RILSAMID® AZM 50 BLACK T6LD

POLYAMIDE 12 PELLET

RILSAMID® AZM 50 BLACK T6LD is a polyamide 12 compound. This glass fiber reinforced grade is designed for injection molding and is used to produce air brake or automotive fittings; quick connectors, the incorporation of a high amount of glass fibers leading to a very rigid and tough product.

Designation : ISO 16396 - PA12, GF50, M1G1HLR, C16-120

TYPE

PA12-GF50

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)	6.2	cm^3/10min	ISO 1133
Shrinkage, parallel (t+24h)	0.2	%	ISO 294-4
Shrinkage, normal (t+24h)	0.7	%	ISO 294-4

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MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	10500 / 10200	MPa	ISO 178
Tensile modulus, 23°C (73°F)	12200 / 12000	MPa	ISO 527-1/-2
Yield stress, 23°C (73°F)	152 / 145	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F)	3.7 / 3.6	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	151 / 144	MPa	ISO 527-1/-2
Strain at break, 23°C (73°F)	4.6 / 4.9	%	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	89 / 85	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	94 / 87	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	23 / 21	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	17 / 15	kJ/m2	ISO 179 1eA
Hardness, shore D, instantaneous	83 / -		ISO 868
Hardness, shore D, 15 s	80 / -		ISO 868

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

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	177	°C	ISO 11357-1/-3
Heat deflection temperature, 0.45 MPa	176	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	167	°C	ISO 75-1/-2

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.47	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / 50%RH	0.37	%	ISO 62
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.96	%	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: 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

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REGIONAL AVAILABILITY

World, Asia Pacific, Europe, Northern America

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