

## TECHNICAL DATA SHEET

# RILSAMID® AZM 30 O TLD

## POLYAMIDE 12 PELLET

RILSAMID® AZM 30 O TLD 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, GF30, M1G1HLR, C16-070

### DESIGNATION

PA12-GF30

### DELIVERY FORM

- Pellets

### TRANSFORMATION PROCESSES

- Injection Molding

### ADDITIVES

- Heat Stabilized
- Light Stabilized
- Release agent

## RHEOLOGICAL PROPERTIES

속성	값	테스트 표준
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	12 cm <sup>3</sup> /10min	ISO 1133
Shrinkage, Parallel (t+24h)	0.2 %	ISO 294-4
Shrinkage, Normal (t+24h)	0.8 %	ISO 294-4

## MECHANICAL PROPERTIES

속성	DRY / COND VALUE*	테스트 표준
Tensile modulus, 23°C (73°F), 1 mm/min	6700 / 6300 MPa	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	127 / 115 MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	4 / 4 %	ISO 527-1/-2
Charpy unnotched impact strength, 23°C (73°F)	85 / 88 kJ/m <sup>2</sup>	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	96 / 93 kJ/m <sup>2</sup>	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 23 kJ/m <sup>2</sup>	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	15 / 16 kJ/m <sup>2</sup>	ISO 179 1eA

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

# RILSAMID® AZM 30 0 TLD

속성	값	테스트 표준
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	175 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	160 °C	ISO 75-1/-2
Thermal Degradation temperature, Under nitrogen at 10°C/min (1%_wt_Loss)	222 °C	ISO 11358-1
Thermal Degradation temperature, Under air at 10°C/min (1%_wt_Loss)	224 °C	ISO 11358-1

## THERMAL PROPERTIES/ELECTRICAL PROPERTIES

속성	DRY / COND VALUE*	테스트 표준
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 stress, 23°C (73,4°F)	- / 45	IEC 60243-1
Relative permittivity, 100Hz	- / 4	IEC 60250
Relative permittivity, 1Mhz	- / 4	IEC 60250
Dissipation factor, 100Hz	- / 752	IEC 60250
Dissipation factor, 1Mhz	- / 752	IEC 60250

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COND: Conditionned.

## OTHER PROPERTIES

속성	값	테스트 표준
Specific gravity, 23°C (73°F)	1.23 g/cm <sup>3</sup>	ISO 1183-1
Moisture absorption, At equilibrium at 23°C (73°F) / 50%HR	0.6 %	ISO 62
Water absorption, 23°C (73°F), immersion, equilibrium	1.2 %	ISO 62

## PACKAGING

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

- 26 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.

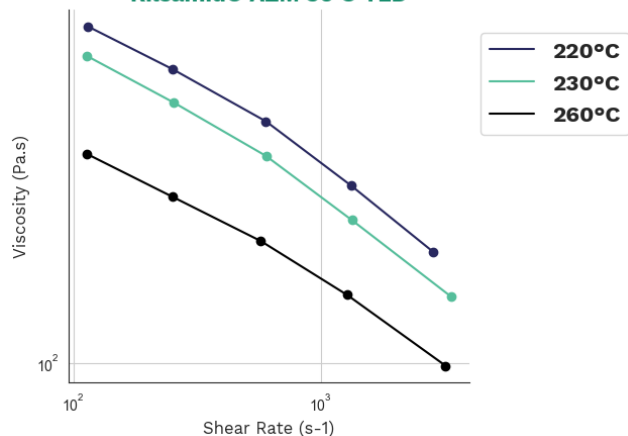
## PROCESSING CONDITIONS:

- 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

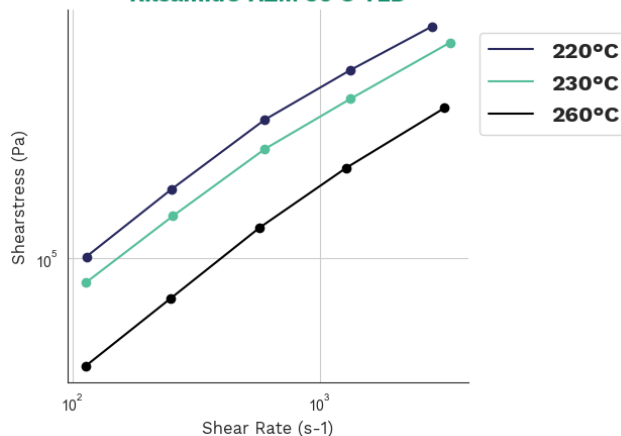
# RILSAMID® AZM 30 O TLD

## DIAGRAMS

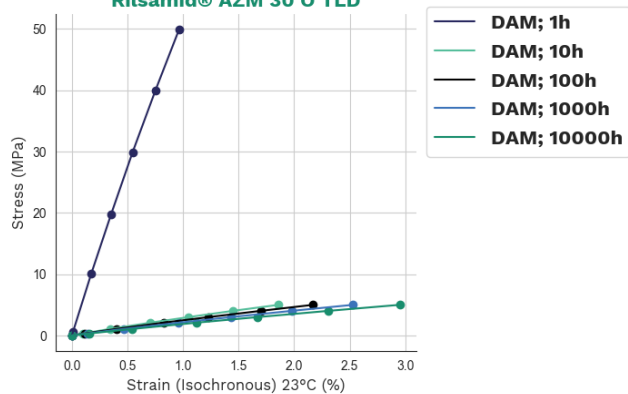
**Viscosity-shear rate**  
Rilsamid® AZM 30 O TLD



**Shearstress-shear rate**  
Rilsamid® AZM 30 O TLD



**Stress-strain (Isochronous) 23°C**  
Rilsamid® AZM 30 O TLD



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