

RILSAMID®

AZM 30 O TLD

ISO 16396 - PA12 , GF30, M1GHLR, C16-070

Rilsamid® AZM 30 O TLD resin is a fiberglass reinforced polyamide. This natural grade is designed for injection moulding.

This grade is also available in green (Rilsamid® AZM 30 Green 56827 TLD resin) and grey (Rilsamid® AZM 30 Grey 632 TLD resin).

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	12 / *	cm ³ /10 min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	-
Load	5 / *	kg	-
	11 / *	lb	-
Melt Flow Rate	≥12.8	g/10min	ASTM D1238
MECHANICAL PROPERTIES			
Tensile Modulus	6900 / 6500	MPa	ISO 527-1/-2
	1E6 / 943000	psi	
Yield Stress	127 / 115	MPa	ISO 527-1/-2
	18400 / 16700	psi	
Yield Strain	4 / 4	%	ISO 527-1/-2
Stress at Break	122 / 110	MPa	ISO 527-1/-2
	17700 / 16000	psi	
Strain at Break	5 / 6	%	ISO 527-1/-2
Charpy Impact Strength, +23°C	85 / 88	kJ/m ²	ISO 179/1eU
	40.4 / 41.9	ftlb/in ²	
Charpy Impact Strength, -30°C	96 / 93	kJ/m ²	ISO 179/1eU
	45.7 / 44.2	ftlb/in ²	
Charpy Notched Impact Strength, +23°C	23 / 22	kJ/m ²	ISO 179/1eA
	10.9 / 10.5	ftlb/in ²	
Charpy Notched Impact Strength, -30°C	15 / 16	kJ/m ²	ISO 179/1eA
	7.14 / 7.61	ftlb/in ²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	179 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	160 / *	°C	ISO 75-1/-2
	320 / *	°F	

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Source: automatically generated TDS from Material Database on 20-02-2024

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Temp. of Deflection Under Load, 0.45 MPa	175 / *	°C	ISO 75-1/-2
	347 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	165 / *	°C	ISO 306
	329 / *	°F	
Coeff. of Linear Thermal Expansion, parallel	50 / *	E-6/K	ISO 11359-1/-2
Thermal Decomposition TGA, in air	224	°C	1% wt. loss
	436	°F	
Thermal Decomposition TGA, in nitrogen	222	°C	1% wt. loss
	431	°F	
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	4 / -	-	IEC 60250
Relative Permittivity, 1MHz	4 / -	-	IEC 60250
Dissipation Factor, 100Hz	752 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	251 / -	E-4	IEC 60250
Volume Resistivity	- / 1E11	Ohm* m	IEC 62631-3-1
Surface Resistivity	* / 1E14	Ohm	IEC 62631-3-2
Dielectric (Electric) Strength	- / 45	kV/mm	IEC 60243-1
	- / 1140	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	1.2 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	0.6 / *	%	ISO 62
Density	1230 / 1230	kg/m³	ISO 1183
	1.23 / 1.23	g/cm³	

PACKAGING:&NBSP;

This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed

SHELF LIFE:

Two years from the delivery.

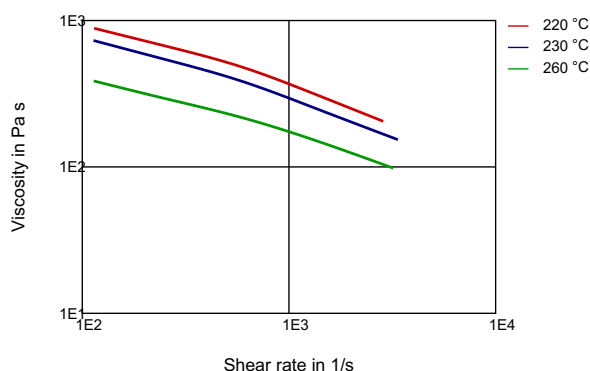
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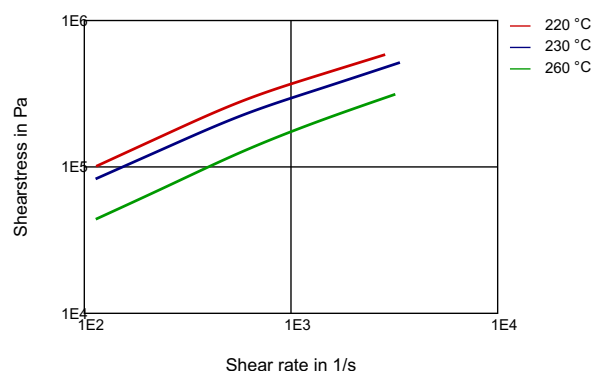
AZM 30 O TLD

DIAGRAMS

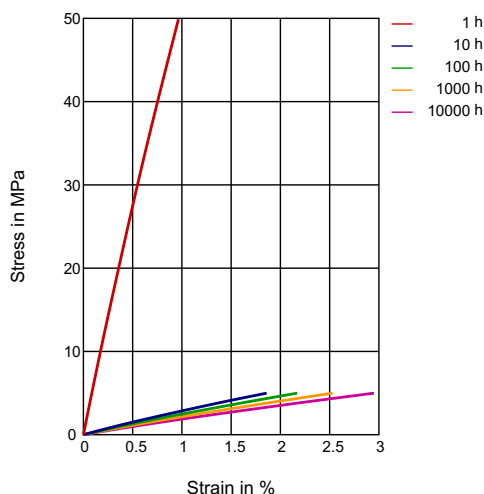
VISCOSITY-SHEAR RATE



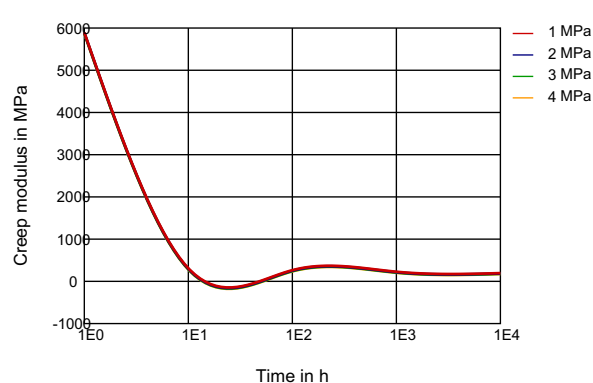
SHEARSTRESS-SHEAR RATE



STRESS-STRAIN (ISOCHRONOUS) 73°F



CREEP MODULUS-TIME 73°F



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 250°C / 265°C / 280°C.
- Typical mold temperature : 40 – 90°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 80-90°C.

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DELIVERY FORM Pellets	
ADDITIVES Release agent	
SPECIAL CHARACTERISTICS Heat Stabilized, Light Stabilized	
REGIONAL AVAILABILITY North America, Europe, Asia Pacific, South and Central America, Near East/Africa	

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