

RILSAMID®

AZM 30 BLACK T6LD

ISO 16396 - PA12, GF30, M1GHLR, 16-070

Rilsamid® AZM 30 BLACK T6LD resin is a fiberglass reinforced polyamide.
This black colored grade is designed for injection molding.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	7 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	5 / *	kg	-
	11 / *	lb	
Melt Flow Rate	≥7	g/10min	ASTM D1238
MECHANICAL PROPERTIES			
Tensile Modulus	6900 / 6400	MPa	ISO 527-1/-2
	1E6 / 928000	psi	
Yield stress	116 / 105	MPa	ISO 527-1/-2
	16800 / 15200	psi	
Yield strain	3 / 4	%	ISO 527-1/-2
Stress at Break	112 / 100	MPa	ISO 527-1/-2
	16200 / 14500	psi	
Strain at Break	5 / 4	%	ISO 527-1/-2
Charpy Impact Strength, +23°C	79 / 77	kJ/m²	ISO 179/1eU
	37.6 / 36.6	ftlb/in²	
Charpy Impact Strength, -30°C	83 / 83	kJ/m²	ISO 179/1eU
	39.5 / 39.5	ftlb/in²	
Charpy Notched Impact Strength, +23°C	19 / 19	kJ/m²	ISO 179/1eA
	9.04 / 9.04	ftlb/in²	
Charpy Notched Impact Strength, -30°C	12 / 12	kJ/m²	ISO 179/1eA
	5.71 / 5.71	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	183 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	163 / *	°C	ISO 75-1/-2
	325 / *	°F	

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Temp. of Deflection Under Load, 0.45 MPa	176 / *	°C	ISO 75-1/-2
	349 / *	°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
Burning Behav. at Thickness h	HB / *	class	IEC 60695-11-10
Thickness Tested	3.0 / *	mm	-
	0.1181 / *	in	
Yellow Card available	yes / *	-	-
Thermal Decomposition TGA, in air	227	°C	1% wt. loss
	441	°F	
Thermal Decomposition TGA, in nitrogen	224	°C	1% wt. loss
	435	°F	
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	4 / -	-	IEC 60250
Relative Permittivity, 1MHz	3 / -	-	IEC 60250
Dissipation Factor, 100Hz	664 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	274 / -	E-4	IEC 60250
Volume Resistivity	- / 1E11	Ohm*m	IEC 60093
Surface Resistivity	* / 1E14	Ohm	IEC 60093
Dielectric (Electric) Strength	35 / 35	kV/mm	IEC 60243-1
	889 / 889	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.3 / *	%	Sim. to ISO 62
Humidity Absorption	0.5 / *	%	Sim. to ISO 62
Density	1240 / 1240	kg/m³	ISO 1183
	1.24 / 1.24	g/cm³	

PACKAGING :&NBSP;

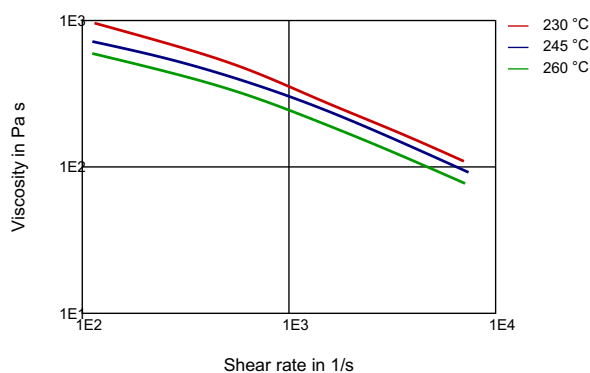
This grade is delivered dried in sealed packaging (25 kg bags / 450 kg rigid containers) ready to be processed

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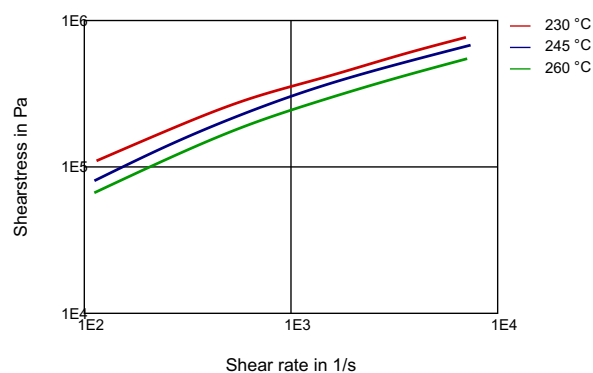
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DIAGRAMS

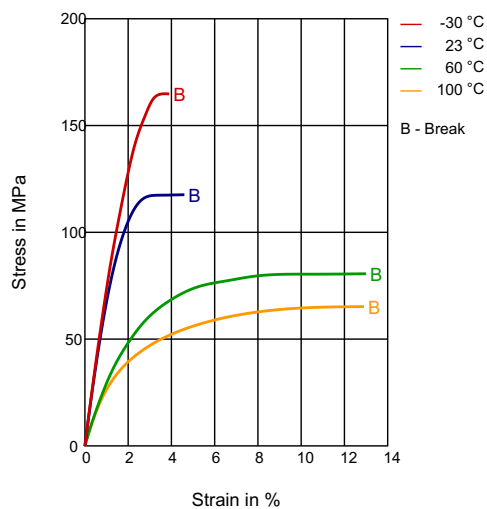
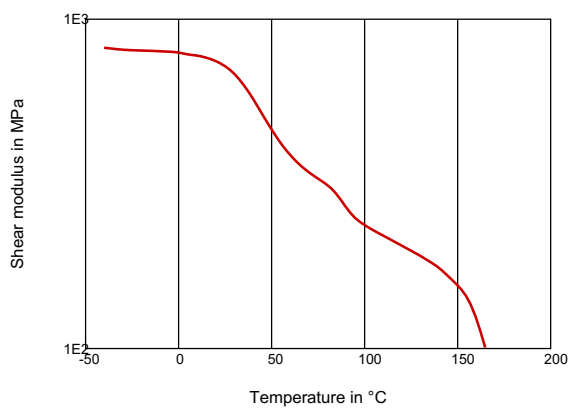
VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE



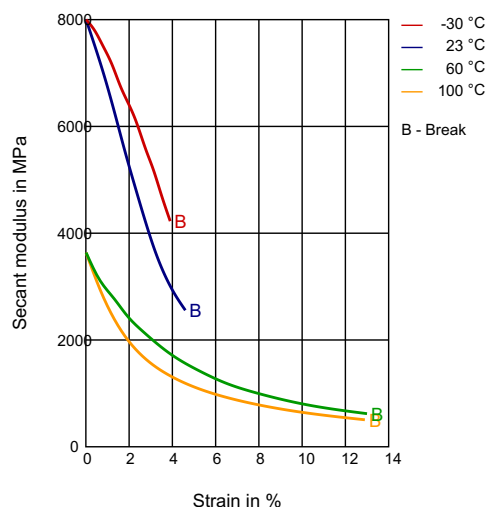
DYNAMIC SHEAR MODULUS-TEMPERATURE & STRESS-STRAIN



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SECANT MODULUS-STRAIN



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.

PROCESSING Injection Molding	
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	