RILSAMID®
AZM 23 BLACK T6LD

ISO 16396 - PA12, GF23, M1GHLR, 16-060

Rilsamid® AZM 23 BLACK T6LD resin is a fiberglass reinforced polyamide.
This black colored grade is designed for injection moulding.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	13 / *	cm³/10 min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	5 / *	kg	-
	11 / *	lb	
Molding Shrinkage, parallel	0.2 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.4 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	5500 / 5070	MPa	ISO 527-1/-2
	798000 / 735000	psi	
Yield Stress	101 / 105	MPa	ISO 527-1/-2
	14600 / 15200	psi	
Yield Strain	3 / 3.5	%	ISO 527-1/-2
Nominal Strain at Break	5 / 5.2	%	ISO 527-1/-2
Stress at Break	95 / 100	MPa	ISO 527-1/-2
	13800 / 14500	psi	
Charpy Impact Strength, +23°C	66 / 77	kJ/m²	ISO 179/1eU
	31.4 / 36.6	ftlb/in²	
Charpy Impact Strength, -30°C	66 / 83	kJ/m²	ISO 179/1eU
	31.4 / 39.5	ftlb/in²	
Charpy Notched Impact Strength, +23°C	15 / 19	kJ/m²	ISO 179/1eA
	7.14 / 9.04	ftlb/in²	
Charpy Notched Impact Strength, -30°C	8 / 12	kJ/m²	ISO 179/1eA
	3.81 / 5.71	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	179 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	165 / *	°C	ISO 75-1/-2
	329 / *	°F	

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Temp. of Deflection Under Load, 0.45 MPa	173 / *	°C	ISO 75-1/-2
	343 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	165 / *	°C	ISO 306
	329 / *	°F	
Coeff. of Linear Thermal Expansion, parallel	60 / *	E-6/K	ISO 11359-1/-2
Thermal Decomposition TGA, in air	222	°C	1% wt. loss
	432	°F	
Thermal Decomposition TGA, in nitrogen	223	°C	1% wt. loss
	433	°F	
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	5 / -	-	IEC 60250
Relative Permittivity, 1MHz	5 / -	-	IEC 60250
Dissipation Factor, 100Hz	1170 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	364 / -	E-4	IEC 60250
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	1.3 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	0.5 / *	%	ISO 62
Density	1180 / 1170	kg/m³	ISO 1183
	1.18 / 1.17	g/cm³	

PACKAGING:

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

SHELF LIFE:

Two years from the delivery.
For any use above this limit please refer to our technical services.

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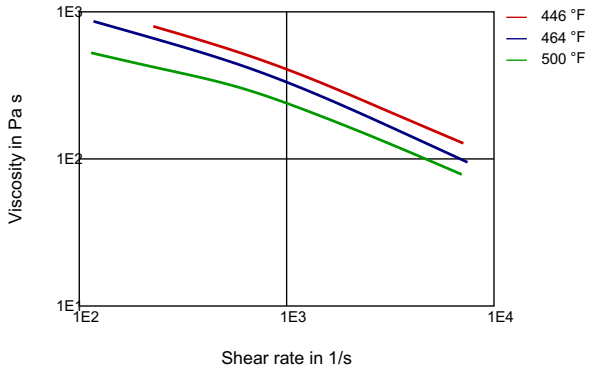
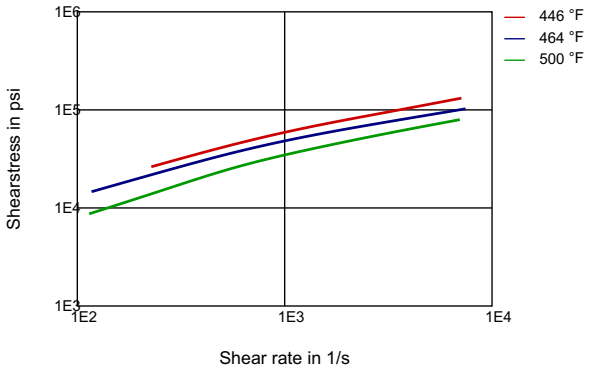
DIAGRAMS

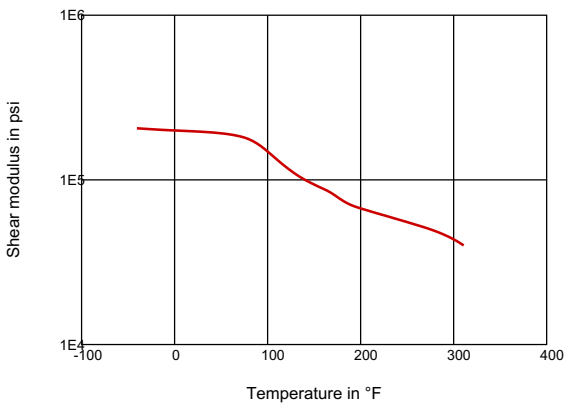
VISCOSITY-SHEAR RATE



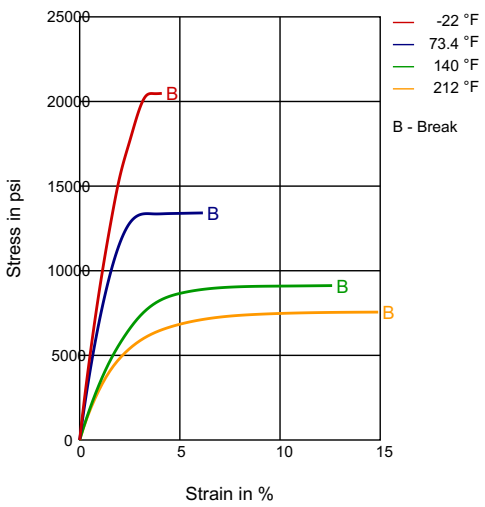
SHEARSTRESS-SHEAR RATE



DYN. SHEAR MODULUS-TEMPERATURE



STRESS-STRAIN



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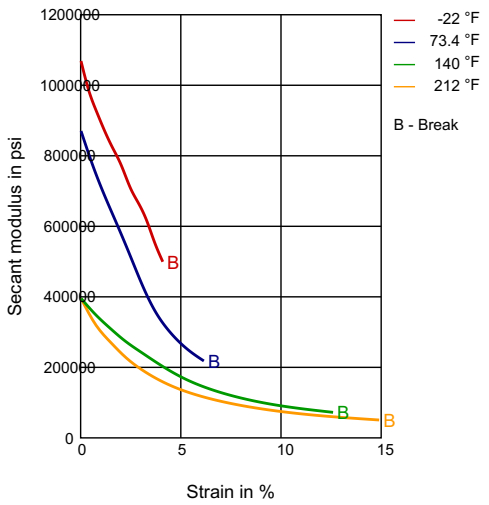
SECANT MODULUS-STRAIN



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

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