+135-3858-6433 (GuangDong)
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RILSAMID®
AMNO P20 TLD

PA12-P, MHLR, 12-005

Rilsamid® AMNO P20 TLD resin is a natural polyamide. This grade is plasticized and designed for injection molding.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	44 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	2.16 / *	kg	-
	4.76 / *	lb	
MECHANICAL PROPERTIES			
Tensile Modulus	620 / 550	MPa	ISO 527-1/-2
	89900 / 79800	psi	
Yield stress	31 / 30	MPa	ISO 527-1/-2
	4500 / 4350	psi	
Yield strain	20 / 20	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	9 / 14	kJ/m²	ISO 179/1eA
	4.28 / 6.66	ftlb/in²	
Charpy Notched Impact Strength, -30°C	3 / 3	kJ/m²	ISO 179/1eA
	1.43 / 1.43	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	173 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	48 / *	°C	ISO 75-1/-2
	118 / *	°F	
Temp. of Deflection Under Load, 0.45 MPa	130 / *	°C	ISO 75-1/-2
	266 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	134 / *	°C	ISO 306
	273 / *	°F	
Coeff. of Linear Thermal Expansion, parallel	120 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	8 / -	-	IEC 60250
Relative Permittivity, 1MHz	4 / -	-	IEC 60250
Dissipation Factor, 100Hz	2010 / -	E-4	IEC 60250

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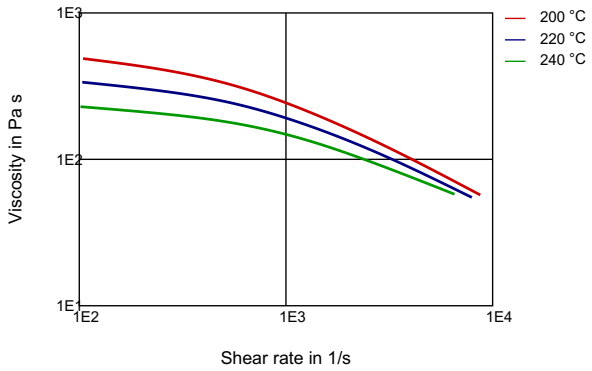
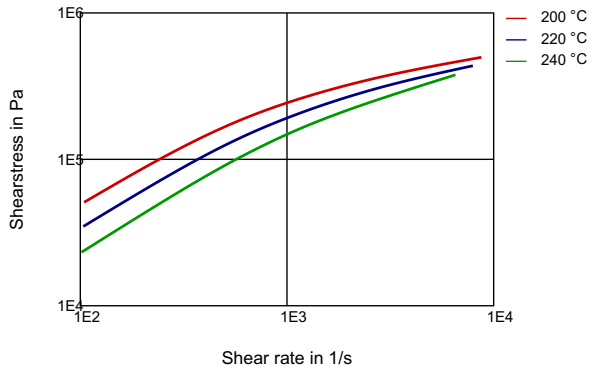
Dissipation Factor, 1MHz	595 / -	E-4	IEC 60250
Volume Resistivity	- / 1E10	Ohm*m	IEC 60093
Surface Resistivity	* / 1E12	Ohm	IEC 60093
Dielectric (Electric) Strength	- / 26	kV/mm	IEC 60243-1
	- / 660	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.4 / *	%	Sim. to ISO 62
Density	1020 / 1020	kg/m³	ISO 1183
	1.02 / 1.02	g/cm³	

DIAGRAMS

VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE



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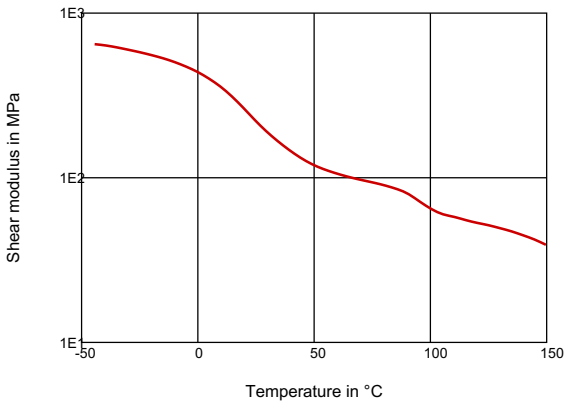
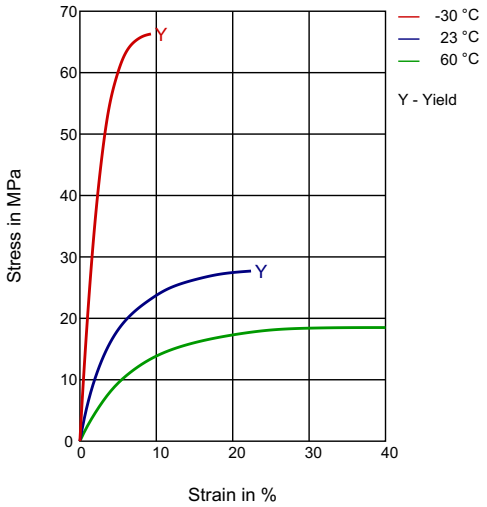
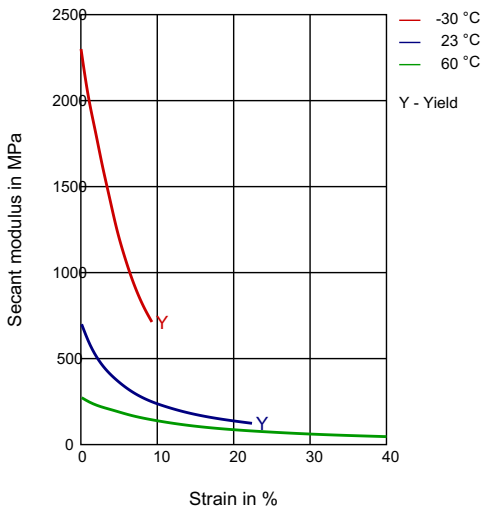
DYNAMIC SHEAR MODULUS-TEMPERATURE



STRESS-STRAIN



SECANT MODULUS-STRAIN



Processing conditions, Injection:

- Typical melt temperature (Min / Recommended / Max) : 250°C / 270°C / 290°C.
- Mold temperature : 20 - 40°C
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 80 - 90°C.

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

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