

RILSAMID® AMNO P40 TLD

PA12-P, MHLR, 12-004

Rilsamid® AMNO P40 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	51 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	2.16 / *	kg	-
	4.76 / *	lb	
MECHANICAL PROPERTIES			
Tensile Modulus	440 / 420	MPa	ISO 527-1/-2
	63800 / 60900	psi	
Yield stress	26 / 24	MPa	ISO 527-1/-2
	3770 / 3480	psi	
Yield strain	26 / 26	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Charpy Impact Strength, +23°C	- / No Break	kJ/m²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / 25	kJ/m²	ISO 179/1eA
	- / 11.9	ftlb/in²	
Charpy Notched Impact Strength, -30°C	- / 4	kJ/m²	ISO 179/1eA
	- / 1.9	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	171 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	46 / *	°C	ISO 75-1/-2
	115 / *	°F	
Temp. of Deflection Under Load, 0.45 MPa	125 / *	°C	ISO 75-1/-2
	257 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	132 / *	°C	ISO 306
	270 / *	°F	
Coeff. of Linear Thermal Expansion, parallel	140 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	12 / -	-	IEC 60250
Relative Permittivity, 1MHz	4 / -	-	IEC 60250

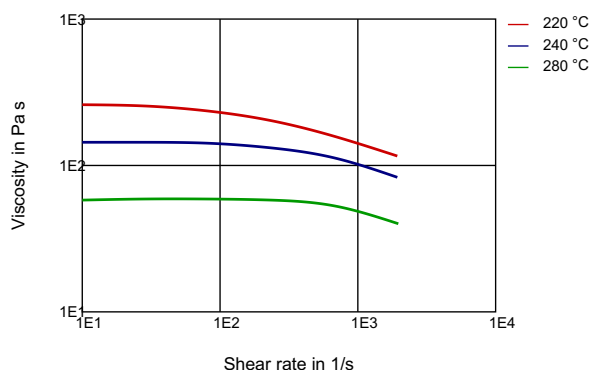
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AMNO P40 TLD

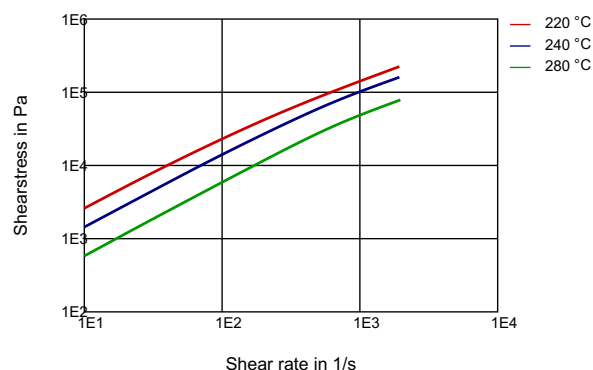
Dissipation Factor, 100Hz	2550 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	1290 / -	E-4	IEC 60250
Volume Resistivity	- / 1E9	Ohm*m	IEC 60093
Surface Resistivity	* / 5E11	Ohm	IEC 60093
Dielectric (Electric) Strength	- / 24	kV/mm	IEC 60243-1
	- / 610	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.2 / *	%	Sim. to ISO 62
Density	1040 / 1040	kg/m ³	ISO 1183
	1.04 / 1.04	g/cm ³	

DIAGRAMS

VISCOSITY-SHEAR RATE



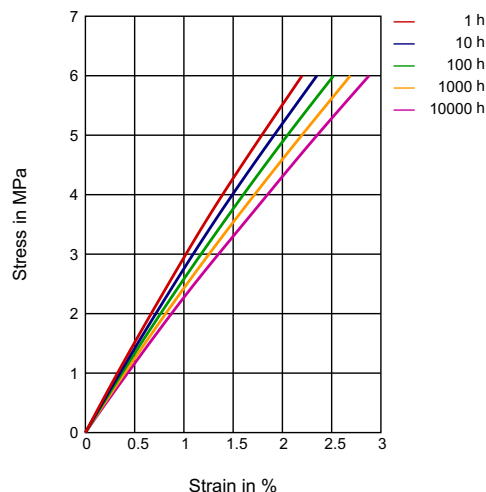
SHEARSTRESS-SHEAR RATE



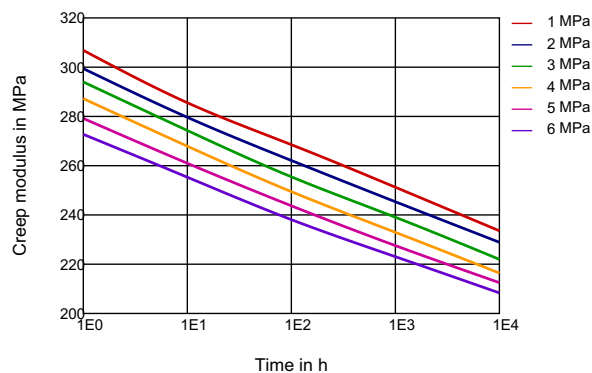
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STRESS-STRAIN (ISOCHRONOUS) 73°F



CREEP MODULUS-TIME 73°F



Processing conditions, Injection:

- Typical melt temperature (Min / Recommended / Max) : 230°C / 250°C / 270°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.

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