RILSAN®
BMNO TLD

PA11, MHLR, 12-010

Rilsan® BMNO TLD resin is a polyamide 11 produced from a renewable source. This natural grade is designed for injection molding.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	30 / *	cm³/10 min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	2.16 / *	kg	-
	4.76 / *	lb	
Molding Shrinkage, parallel	1.1 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.0 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	- / 1320	MPa	ISO 527-1/-2
	- / 191000	psi	
Yield Stress	- / 41	MPa	ISO 527-1/-2
	- / 5950	psi	
Yield Strain	- / 5	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Shore D Hardness, after 15 s	68 / *	-	ISO 868
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	- / 8.3	kJ/m²	ISO 179/1eA
	- / 3.95	ftlb/in²	
Charpy Notched Impact Strength, -30°C	- / 10.5	kJ/m²	ISO 179/1eA
	- / 4.99	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	189 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	50 / *	°C	ISO 75-1/-2
	122 / *	°F	
Temp. of Deflection Under Load, 0.45 MPa	145 / *	°C	ISO 75-1/-2
	293 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	160 / *	°C	ISO 306
	320 / *	°F	

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

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Coeff. of Linear Thermal Expansion, parallel	85 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	4 / -	-	IEC 60250
Relative Permittivity, 1MHz	3 / -	-	IEC 60250
Dissipation Factor, 100Hz	598 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	262 / -	E-4	IEC 60250
Volume Resistivity	- / 1E12	Ohm* m	IEC 62631-3-1
Surface Resistivity	* / 1E14	Ohm	IEC 62631-3-2
Dielectric (Electric) Strength	- / 30	kV/mm	IEC 60243-1
	- / 762	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	1.9 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	0.8 / *	%	ISO 62
Density	1030 / 1030	kg/m³	ISO 1183
	1.03 / 1.03	g/cm³	

MAIN APPLICATIONS:

- Quick connectors parts

PACKAGING:

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

SHELF LIFE:

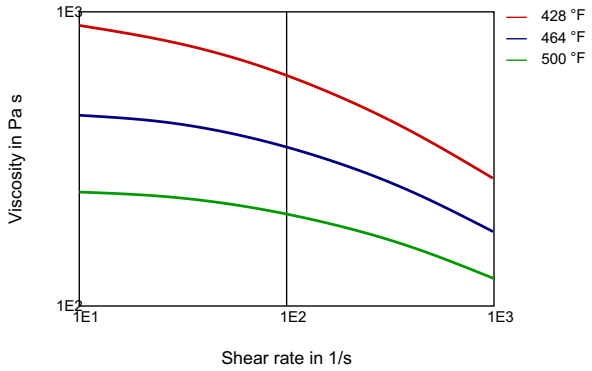
Two years from the delivery. For any use above this limit, please refer to our technical services.

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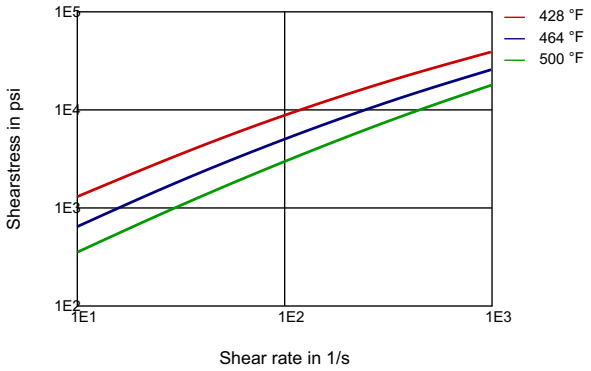
RILSAN®
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DIAGRAMS

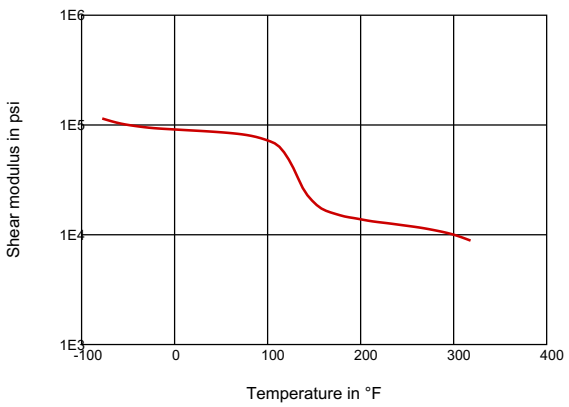
VISCOSITY-SHEAR RATE



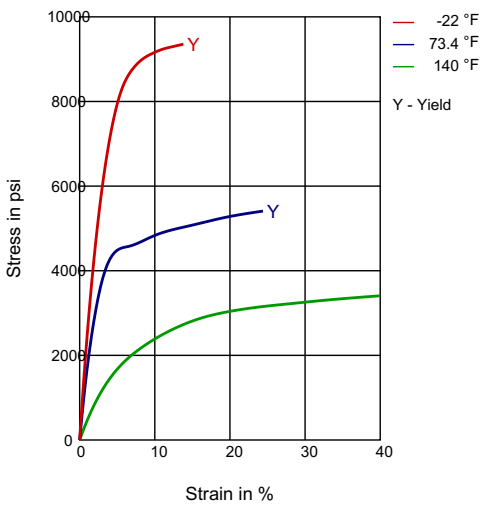
SHEARSTRESS-SHEAR RATE



DYN. SHEAR MODULUS-TEMPERATURE



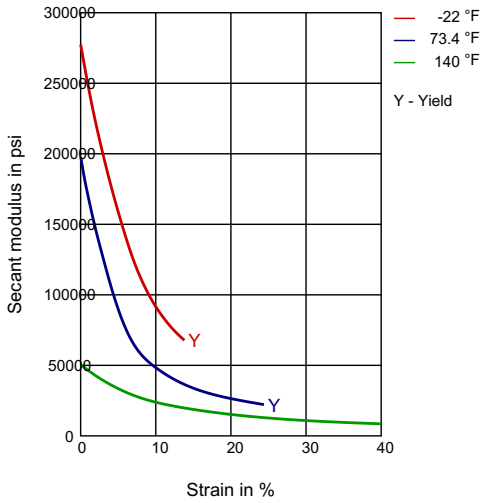
STRESS-STRAIN



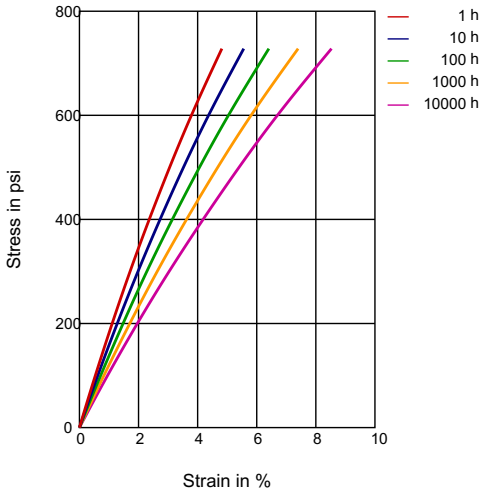
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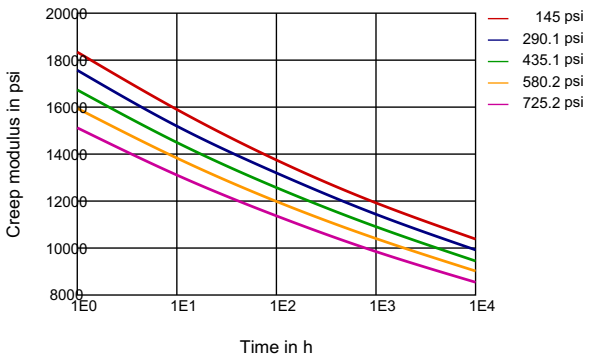
SECANT MODULUS-STRAIN



STRESS-STRAIN (ISOCHRONOUS) 248°F



CREEP MODULUS-TIME 248°F



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 210°C / 230°C / 280°C.
- Mold temperature : 20 - 60°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

SPECIAL CHARACTERISTICS

Bio-Based, Heat Stabilized, Light Stabilized

REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

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