

RILSAMID®

AESNO P302 TL

ISO 16396 - PA12-HIP, EGHL, C22-004

Rilsamid® AESNO P302 TL resin is a natural polyamide.

This grade is plasticized and designed for tube extrusion.

Rilsamid® AESNO P302 TL resin falls into the PA12-HIPHL category according to DIN 73378.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	13 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	5 / *	kg	-
	11 / *	lb	
MECHANICAL PROPERTIES			
Tensile Modulus	475 / 430	MPa	ISO 527-1/-2
	68900 / 62400	psi	
Yield stress	28 / 24	MPa	ISO 527-1/-2
	4060 / 3480	psi	
Yield strain	24 / 24	%	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	46 / No Break	kJ/m²	ISO 179/1eA
	21.9 / No Break	ftlb/in²	
Charpy Notched Impact Strength, -30°C	4 / 6	kJ/m²	ISO 179/1eA
	1.9 / 2.85	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	174 / *	°C	ISO 11357-1/-3
Coeff. of Linear Thermal Expansion, parallel	150 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Volume Resistivity	1E12 / 1E12	Ohm*m	IEC 60093
Surface Resistivity	* / 7E13	Ohm	IEC 60093
Dielectric (Electric) Strength	41 / 41	kV/mm	IEC 60243-1
	1040 / 1040	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			

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Water Absorption	1.2 / *	%	Sim. to ISO 62
Density	1030 / 1030	kg/m ³	ISO 1183
	1.03 / 1.03	g/cm ³	

MAIN APPLICATIONS:

Air brake.
Tubing for use in motor vehicles

PACKAGING:

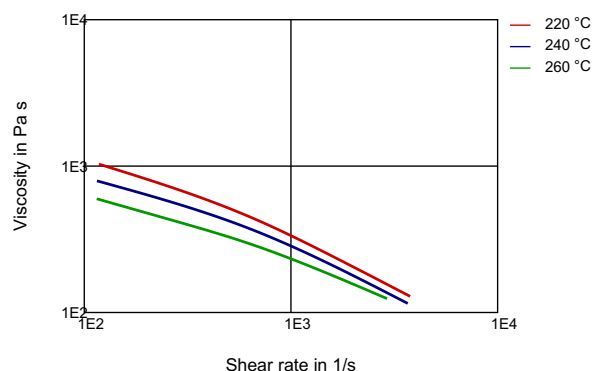
This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

SHELF LIFE:

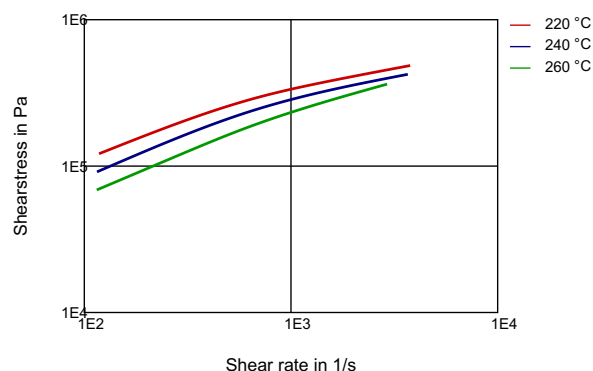
Two years from the date of delivery. for any use above this limit, please refer to our technical services.

DIAGRAMS

VISCOSITY-SHEAR RATE



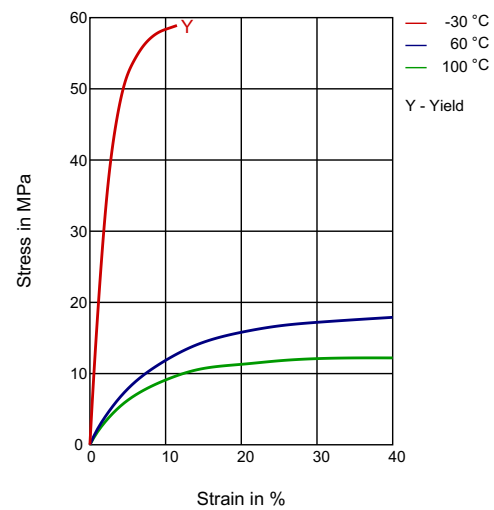
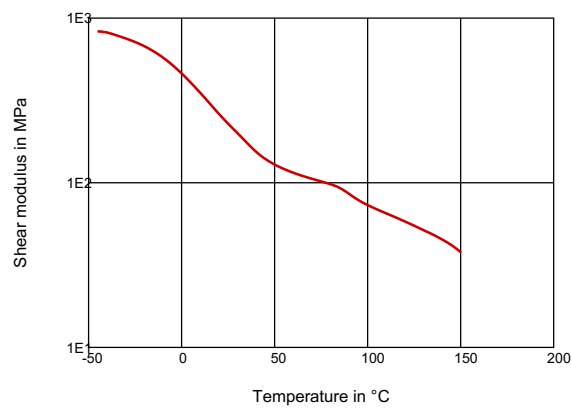
SHEARSTRESS-SHEAR RATE



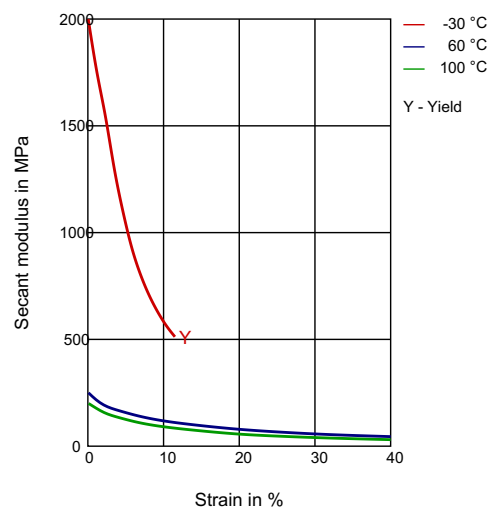
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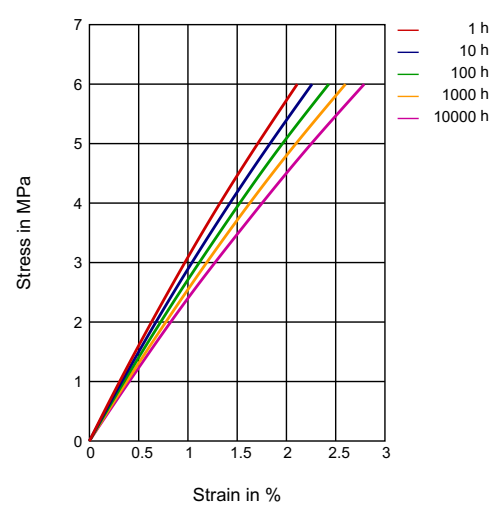
DYNAMIC SHEAR MODULUS-TEMPERATURESTRESS-STRAIN



SECANT MODULUS-STRAIN



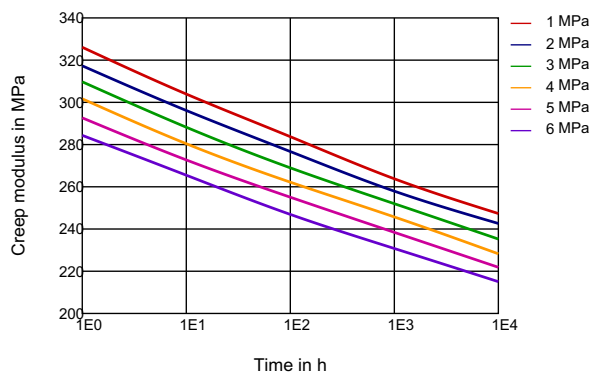
STRESS-STRAIN (ISOCHRONOUS) 73°F



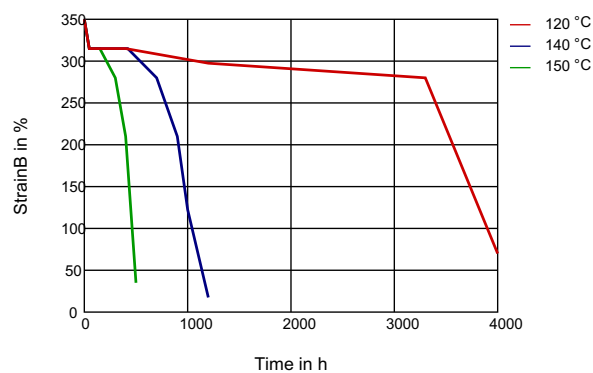
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CREEP MODULUS-TIME 73°F



LTHA-STRAIN AT BREAK 0IN



Processing conditions, Extrusion :

- Typical melt temperature (Min / Recommended / Max) : 200°C / 220°C / 240°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 80°C.

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