

RILSAMID®

AESNO P40 TL

ISO 16396 - PA12-P, EGH, C22-004

Rilsamid® AESNO P40 TL resin is a natural polyamide.
This grade is plasticized and designed for tube extrusion.

Rilsamid® AESNO P40 TL resin falls into the PA12-PHL category according to DIN 73378.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	16 / *	cm ³ /10 min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	-
Load	5 / *	kg	-
	11 / *	lb	-
MECHANICAL PROPERTIES			
Tensile Modulus	430 / 380	MPa	ISO 527-1/-2
	62400 / 55100	psi	
Yield Stress	26 / 23	MPa	ISO 527-1/-2
	3770 / 3340	psi	
Yield Strain	24 / 26	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Charpy Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / No Break	kJ/m ²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	- / 5	kJ/m ²	ISO 179/1eA
	- / 2.38	ftlb/in ²	
Puncture - Maximum Force, -30°C	- / 5600	N	ISO 6603-2
Puncture Energy, -30°C	- / 60	J	ISO 6603-2
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	174 / *	°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	90 / *	°C	ISO 75-1/-2
	194 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	130 / *	°C	ISO 306
	266 / *	°F	

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Source: automatically generated TDS from Material Database on 12-08-2024

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Coeff. of Linear Thermal Expansion, parallel	140 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Volume Resistivity	- / 1E9	Ohm* m	IEC 62631-3-1
Surface Resistivity	* / 5E11	Ohm	IEC 62631-3-2
Dielectric (Electric) Strength	- / 24	kV/mm	IEC 60243-1
	- / 610	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption, 23°C, immersion, equilibrium	1.2 / *	%	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:

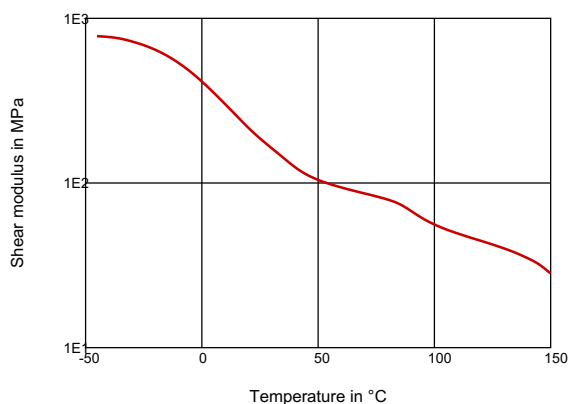
Two years from the date of delivery. for any use above this limit, please refer to our technical services.

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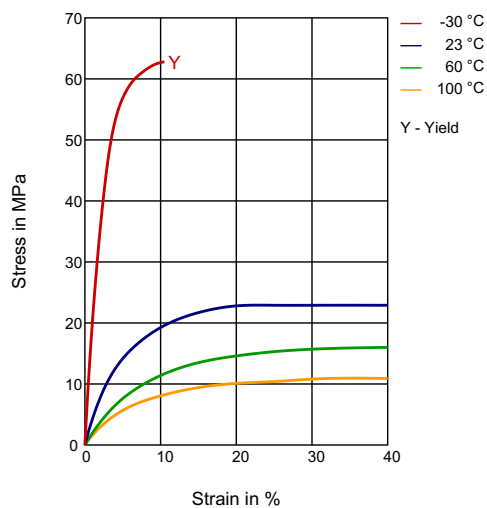
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DIAGRAMS

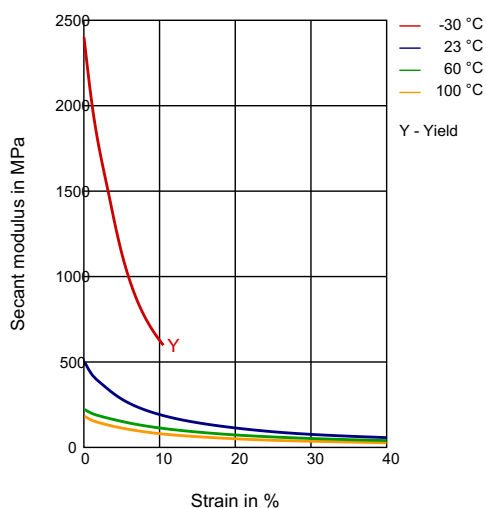
DYN. SHEAR MODULUS-TEMPERATURE



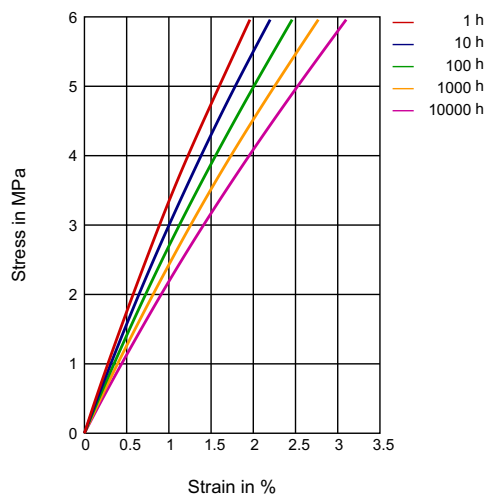
STRESS-STRAIN



SECANT MODULUS-STRAIN



STRESS-STRAIN (ISOCHRONOUS) 73°F

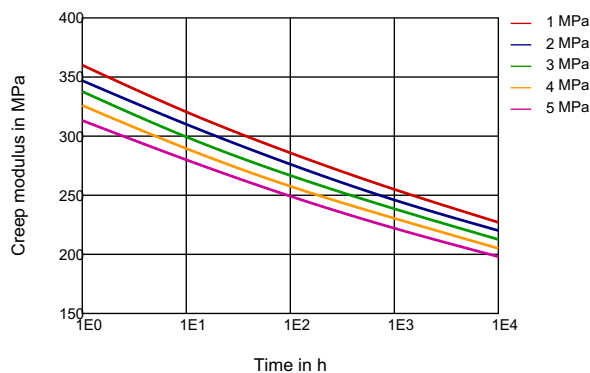


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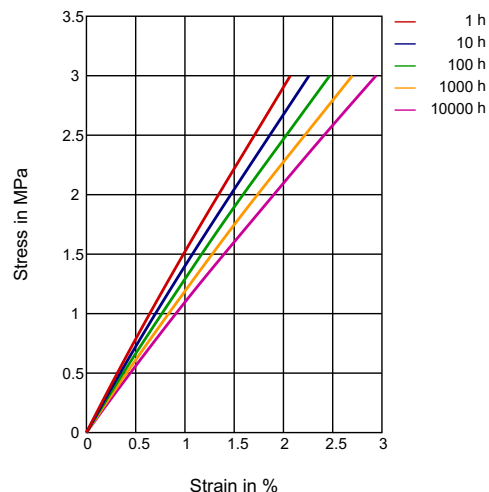
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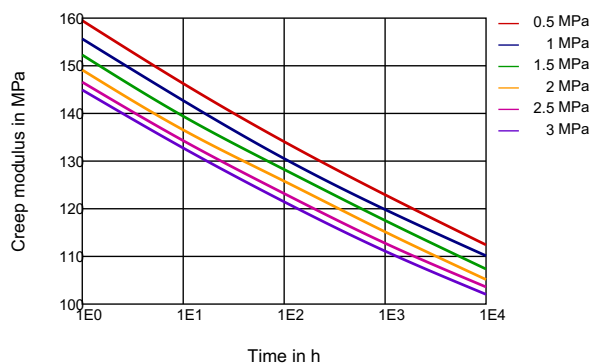
CREEP MODULUS-TIME 73°F



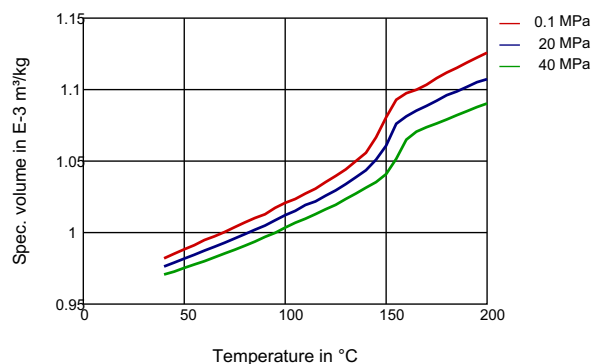
STRESS-STRAIN (ISOCRONOUS) 176°F



CREEP MODULUS-TIME 176°F



SPECIFIC VOLUME-TEMPERATURE (PVT)



Processing conditions, Extrusion :

- Typical melt temperature (Min / Recommended / Max) : 210°C / 230°C / 260°C.
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-8 hours at 80°C.

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PROCESSING Injection Molding, Profile Extrusion, Other Extrusion	Headquarters: Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com
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	

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