

ORGALLOY® LT 5050 T6L NAT

Orgalloy® LT 5050 T6L NAT resin is a polyamide alloy especially designed for tube extrusion. This natural grade dedicated to extrusion offers good barrier properties and chemical resistance to oils and HFC gas, a high thermal resistance and flexibility.

Flexibility:

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	2.5 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	
Load	5 / *	kg	-
	11 / *	lb	
MECHANICAL PROPERTIES			
Tensile Modulus	- / 500	MPa	ISO 527-1/-2
	- /	psi	
Stress at 50% Strain	72500 / 723	MPa	ISO 527-1/-2
	- / 3340	psi	
Strain at Break	- / >50	%	ISO 527-1/-2
Shore D Hardness	55 / *	-	ISO 868
Tensile Creep Modulus, 1h	* / 420	MPa	ISO 899-1
	* /	psi	
Tensile Creep Modulus, 1000h	60900 / 6090	MPa	ISO 899-1
	* / 270	psi	
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	75 / 80	kJ/m²	ISO 179/1eA
	35.7 / 38.1	ftlb/in²	
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
Vicat Softening Temperature, 50°C/h 50N	75 / *	°C	ISO 306
	167 / *	°F	
Coeff. of Linear Thermal Expansion, parallel	170 / *	E-6/K	ISO 11359-1/-2
Coeff. of Linear Thermal Expansion, normal	180 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nominal Thickness	HB / *	class	IEC 60695-11-10
Thickness Tested	1.6 / *	mm	-
	0.0630 / *	in	
Burning Behav. at Thickness h	HB / *	class	IEC 60695-11-10

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Thickness Tested	3.2 / *	mm	-
	0.1260 / *	in	
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	- / 4	-	IEC 60250
Relative Permittivity, 1MHz	- / 4	-	IEC 60250
Dissipation Factor, 100Hz	- / 1100	E-4	IEC 60250
Dissipation Factor, 1MHz	- / 500	E-4	IEC 60250
Volume Resistivity	- / 7.5E11	Ohm*m	IEC 60093
Surface Resistivity	* / >1E15	Ohm	IEC 60093
Dielectric (Electric) Strength	36 / 36	kV/mm	IEC 60243-1
	914 / 914	kV/in	
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Density	1040 / 1040	kg/m³	ISO 1183
	1.04 / 1.04	g/cm³	

MAIN APPLICATIONS: • Barrier layer for air conditioning hoses • Barrier layer for LPG lines

PACKAGING:

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

SHELF LIFE:

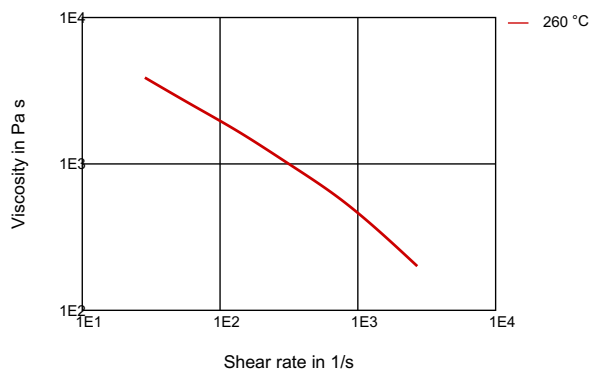
Two years from the date of delivery. For any use above this limit, please refer to our technical services.

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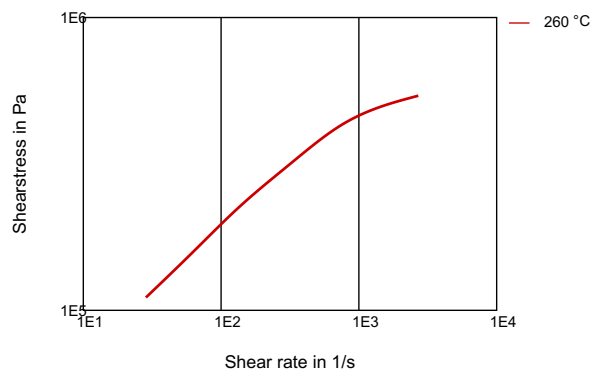
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DIAGRAMS

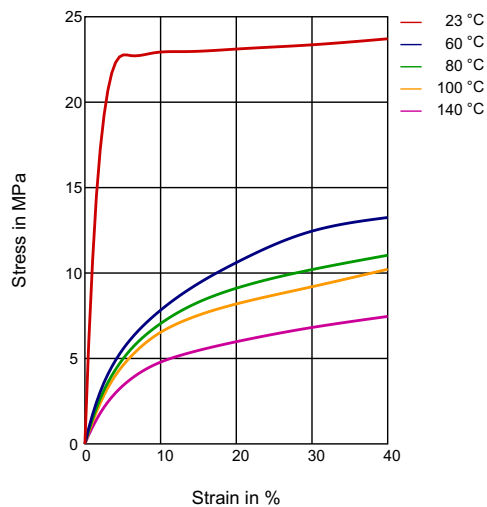
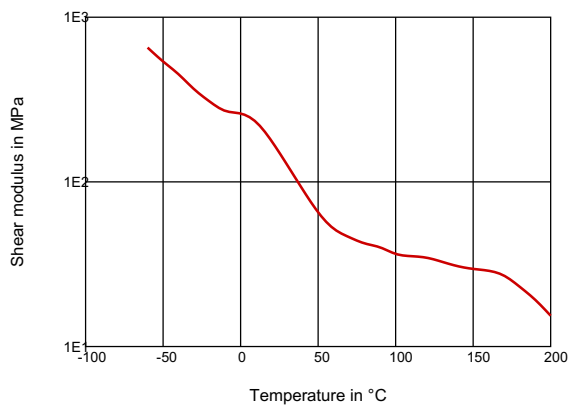
VISCOSITY-SHEAR RATE



SHEARSTRESS-SHEAR RATE

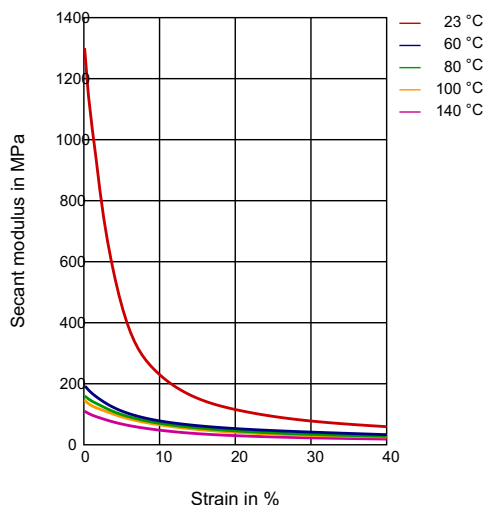


DYNAMIC SHEAR MODULUS-TEMPERATURE

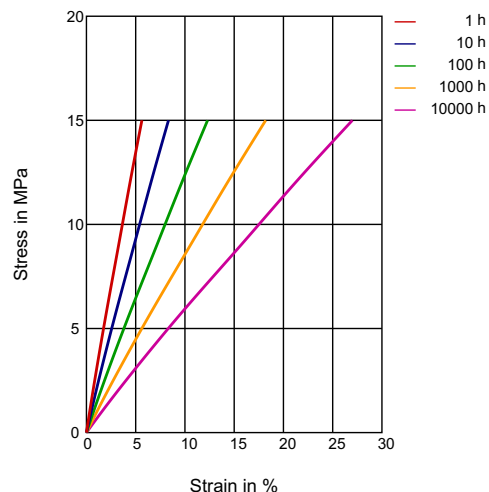


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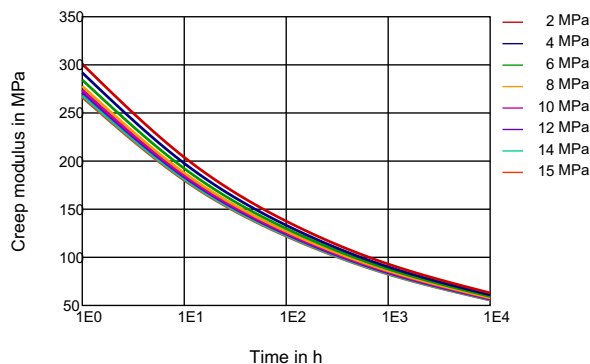
SECANT MODULUS-STRAIN



STRESS-STRAIN (ISOCHRONOUS) 73°F



CREEP MODULUS-TIME 73°F



Processing conditions:

- Drying time (only necessary for bags opened for more than two hours): 4-8 hours at 80°C
- Extrusion melt temperature (min-recommended-max): 250-260-270°C

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PROCESSING Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Calendering, Transfer Molding, Thermoforming	
DELIVERY FORM Pellets	
SPECIAL CHARACTERISTICS Heat Stabilized, Light Stabilized	
REGIONAL AVAILABILITY North America, Europe, Asia Pacific, South and Central America, Near East/Africa	