

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.

MAIN CHARACTERISTICS

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	2.5 / *	cm ³ /10min	ISO 1133
Temperature	235 / *	°C	-
Load	5 / *	kg	-
MECHANICAL PROPERTIES			
Tensile Modulus	- / 500	MPa	ISO 527-1/-2
Stress at 50% Strain	- / 23	MPa	ISO 527-1/-2
Strain at Break	- / > 50	%	ISO 527-1/-2
Shore D Hardness, 15s	55 / *	-	ISO 7619-1
Tensile Creep Modulus, 1h	* / 420	MPa	ISO 899-1
Tensile Creep Modulus, 1000h	* / 270	MPa	ISO 899-1
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m ²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	75 / 80	kJ/m ²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	220 / *	°C	ISO 11357-1/-3
Vicat Softening Temperature, 50°C/h 50N	75 / *	°C	ISO 306
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	-
Burning Behav. at Thickness h	HB / *	class	IEC 60695-11-10
Thickness Tested	3.2 / *	mm	-
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
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Density	1040 / 1040	kg/m ³	ISO 1183

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ORGALLOY®
BY ARKEMA

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MAIN APPLICATIONS:

- Barrier layer for air conditioning hoses
- Barrier layer for LPG lines

PACKAGING:

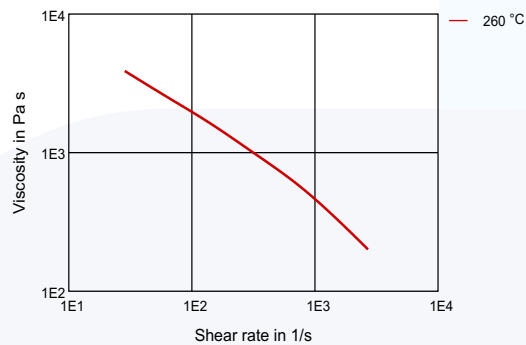
This grade is delivered dried in sealed packaging (25kg bags) ready to be processed.

SHELF LIFE:

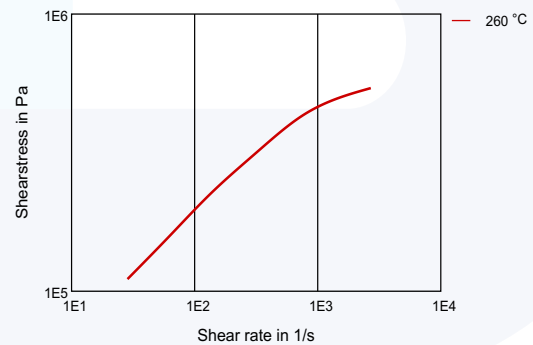
Two years from the date of delivery. For any use above this limit, please refer to our technical services.

DIAGRAMS

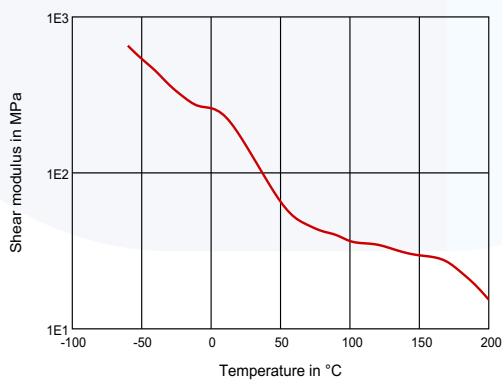
VISCOSITY-SHEAR RATE



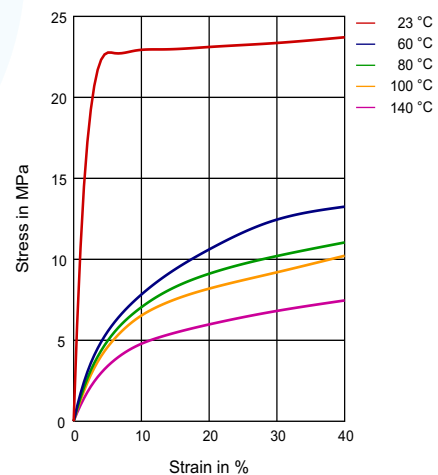
SHEARSTRESS-SHEAR RATE



DYNAMIC SHEAR MODULUS-TEMPERATURE



STRESS-STRAIN



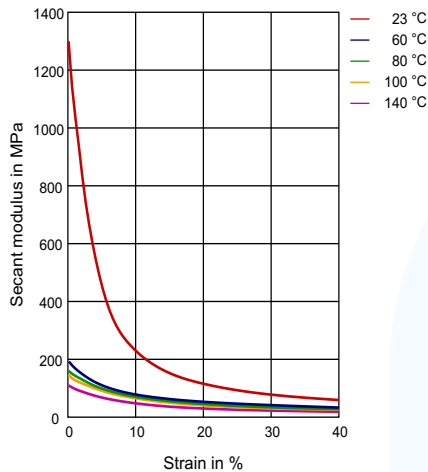
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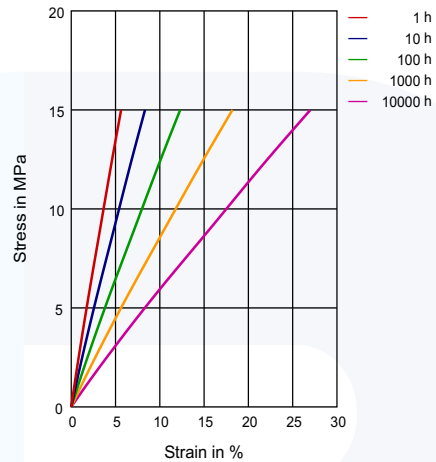
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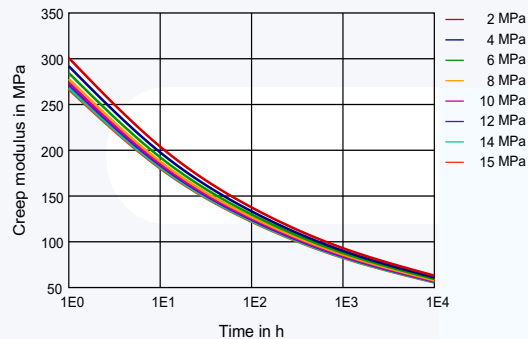
SECANT MODULUS-STRAIN



STRESS-STRAIN (ISOCHRONOUS) 23°C



CREEP MODULUS-TIME 23°C



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

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

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