

ORGALLOY® LE 60 THM NAT

Orgalloy® LE 60 THM NAT resin is a polyamide alloy especially designed for tube and profile extrusion. This natural grade dedicated to extrusion offers excellent barrier properties and chemical resistance to hydrocarbons, alcohols and solvents while exhibiting a good cold impact performance and abrasion resistance. Conform to the European regulations concerning materials in contact with foodstuffs.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	4 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
	455 / *	°F	-
Load	2.16 / *	kg	-
	4.76 / *	lb	-
MECHANICAL PROPERTIES			
Tensile Modulus	2000 / 1750	MPa	ISO 527-1/-2
	290000 / 254000	psi	
Yield stress	49 / 42	MPa	ISO 527-1/-2
	7110 / 6090	psi	
Yield strain	4 / 6	%	ISO 527-1/-2
Nominal Strain at Break	>50 / >50	%	ISO 527-1/-2
Shore D Hardness	67 / *	-	ISO 868
Tensile Creep Modulus, 1h	* / 1520	MPa	ISO 899-1
	* /	psi	
Tensile Creep Modulus, 1000h	220000 * / 7690	MPa	ISO 899-1
	* /	psi	
Charpy Impact Strength, +23°C	100000 - / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	23 / 20	kJ/m²	ISO 179/1eA
	10.9 / 9.51	ftlb/in²	
Stress at Yield, parallel	35 / *	MPa	ISO 527-3
	5080 / *	psi	
Stress at Yield, normal	35 / *	MPa	ISO 527-3
	5080 / *	psi	
Strain at Yield, parallel	16 / *	%	ISO 527-3
Strain at Yield, normal	16 / *	%	ISO 527-3
Maximum Stress, parallel	61 / *	MPa	ISO 527-3
	8850 / *	psi	
Maximum Stress, normal	55 / *	MPa	ISO 527-3
	7980 / *	psi	

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Maximum Strain, parallel	610 / *	%	ISO 527-3
Maximum Strain, normal	550 / *	%	ISO 527-3
Elmendorf Tear Resistance, parallel	45 / *	N	ISO 6383-2
Elmendorf Tear Resistance, normal	55 / *	N	ISO 6383-2
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	220 / *	°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	80 / *	°C	ISO 75-1/-2
	176 / *	°F	
Vicat Softening Temperature, 50°C/h 50N	128 / *	°C	ISO 306
	262 / *	°F	
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
Thickness Tested	3.2 / *	mm	-
	0.1260 / *	in	
ELECTRICAL PROPERTIES			
Surface Resistivity	* / >1E15	Ohm	IEC 60093
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	6 / *	%	Sim. to ISO 62
Humidity Absorption	1.8 / *	%	Sim. to ISO 62
Density	1050 / 1050	kg/m³	ISO 1183
	1.05 / 1.05	g/cm³	

MAIN APPLICATIONS:

- Fuel station pipes
- barrier layer to hydrocarbons and alcohols
- Guidance tubing for cars sunroof
- Cable protection profiles resistant to hydrocarbons
- MLT fuel lines containing alcohols
- Food and chemical packaging
- Slide rails & rolls for conveyor industry
- Profiles

PACKAGING:

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

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SHELF LIFE:

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

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

Injection Molding, 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