

Orgalloy® LT 5050

Polyamide 6 Alloy

Arkema

Message:

Orgalloy® LT 5050 is a Polyamide 6 Alloy (Nylon 6 Alloy) product. It can be processed by calendering, extrusion, film extrusion, injection molding, profile extrusion, resin transfer molding, sheet extrusion, or thermoforming and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America.

Characteristics include:

Heat Resistant

Impact Resistant

General Information				
Features		Good Impact Resistance		
		High Heat Resistance		
		Platable		
Forms		Pellets		
Processing Method		Calendering		
		Extrusion		
		Film Extrusion		
		Injection Molding		
		Profile Extrusion		
		Resin Transfer Molding		
		Sheet Extrusion		
		Thermoforming		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Shear Modulus vs. Temperature (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1040	1040	kg/m ³	ISO 1183 ¹
Melt volume-flow rate (235°C/5.0 kg)	2.00	--	cm ³ /10min	ISO 1133 ²
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	--	460	MPa	ISO 527-2 ³
Tensile Stress (50% Strain)	--	23.0	MPa	ISO 527-2 ⁴
Tensile Strain (Break)	--	> 50	%	ISO 527-2 ⁵
Tensile Creep Modulus				ISO 899-1 ⁶
1 hr	--	420	MPa	
1000 hr	--	270	MPa	

Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature ⁷	220	--	°C	ISO 11357-3 ⁸
CLTE				ISO 11359-2 ⁹
Flow	1.7E-4	--	cm/cm/°C	
Transverse	1.8E-4	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface resistivity	--	> 1.0E+15	ohms	IEC 60093 ¹⁰
Volume resistivity	--	7.5E+11	ohms·m	IEC 60093 ¹¹
Electric strength	36	36	kV/mm	IEC 60243-1 ¹²
Relative Permittivity				IEC 60250 ¹³
100 Hz	--	4.00		
1 MHz	--	4.00		
Dissipation Factor				IEC 60250 ¹⁴
100 Hz	--	0.11		
1 MHz	--	0.050		
Comparative tracking index	--	600		IEC 60112 ¹⁵
Flammability	Dry	Conditioned	Unit	Test Method
Burning Behav. at 1.6mm nom. thickn. (1.60 mm)	HB	--		ISO 1210 ¹⁶
Burning Behav. at thickness h (3.20 mm)	HB	--		ISO 1210 ¹⁷

NOTE

1. Tested in accordance with
ISO 10350. 23°C/50%r.h.
unless otherwise noted.

2. Tested in accordance with
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6. Tested in accordance with
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7. 10 °C/min

8. Tested in accordance with
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9. Tested in accordance with
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unless otherwise noted.

10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
17.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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