



This internally lubricated cast nylon 6 is self-lubricating in the real meaning of the word. Ertalon LFX, especially developed to lubricate highly loaded and slowly moving parts applications, yields a significant increase in opportunities for application in comparison with standard cast nylons. Provides a reduced coefficient of friction (up to 50% less), substantially increasing the pressure capacity of speed, and a greatly improved wear resistance (up to 10 times better).

High mechanical strength, stiffness, hardness and toughness

Good resistance to fatigue

High mechanical damping ability

Good sliding properties

Excellent wear resistance

Good electrical insulation properties

Good resistance to high energy radiation (gamma rays and X rays)

Good machinability

FEATURES	Test Methods ISO/(IEC)	Units	ERTALON LFX
Color	-	-	green
Density	1183	gr/cm ³	1,135
Water absorption			
- after being 24/96 h immersed in water at 23 °C -		%	0,66/1,24
(1)	-	%	2
- at saturation in air at 23 °C / 50% RH	-	%	2
- at saturation in water at 23 °C	-	%	6,3
Thermal properties (2)			
Melting temperature	-	°C	220
Glass transition temperature (3)	-	°C	-
Thermal conductivity at 23 °C	-	W/(K.m)	0,28
Coefficient of linear thermal expansion:			
- average value between 23 and 60 °C	-	m/(m.K)	80.10 ⁻⁶

- average value between 23 and 100 °C	-	m/(m.K)	90.10 ⁻⁶
Load deformation temperature:			
- by Method A: 1.8 MPa	+ 75	°C	75
Maximum service temperature in air:			
- in short periods (4)	-	°C	165
- continuously: 5,000 / 20,000 h (5)	-	°C	105/90
Minimum working temperature (6)			-20
Inflammability			
- "Oxygen Index"	4589	%	-
- respect to the UL 94 (3/6 mm thick)	-	-	HB/HB
Mechanical properties at 23 °C (8)			
Tensile test (9):			
- tensile stress for creep / stress at break (10)	+ 527	MPa	70/-
- elongation at break (10)	++ 527	MPa	45/-
- elastic modulus (11)	+ 527	%	25
-	++ 527	%	>50
-	+ 527	MPa	3.000
-	++ 527	MPa	1.450
Compression Test (12):			
- effort to 1/2/5% strain (11)	+ 602	MPa	22/43/79
Tensile creep test (9):			
- effort required to produce 1% strain at 1.000 h ($\sigma_{1/1000}$)	+ 899	MPa	18
-	++ 899	MPa	8
Resistencia al impacto Charpy - sin entella (13):			kJ/m ²
Resistencia al impacto Charpy - con entella:	+ 179/1eU	kJ/m ²	≥50
Resistencia al impacto Izod - con entella :	+ 179/1eA	kJ/m ²	4
-	+ 180/2A	kJ/m ²	4
-	++ 180/2A	kJ/m ²	7
Dureza con bola (14):	+ 2039-1	N/mm ²	145
Dureza Rockwell (14):	+ 2039-2	-	M82
Propiedades eléctricas a 23°C			
Resistencia dieléctrica (15)	+ (60243)	kV/mm	22
-	++ (60243)	kV/mm	14
Resistividad volumétrica	+ (60093)	-cm	>1014
-	++ (60093)	-cm	>1013
Resistividad superficial	+ (60093)		>1013

	++ (60093)	>1012
Permeabilidad relativa ϵ_r : - a 100 Hz	+ (60250)	3,5
	++ (60250)	>6,5
- a 1 MHz	+ (60250)	3,1
	++ (60250)	3,6
Factor de pérdidas dieléctricas tan δ : - a 100 Hz	+ (60250)	0,015
	++ (60250)	0,15
- a 1 MHz	+ (60250)	0,016
	++ (60250)	0,05
Índice comparativo de la resistencia a la descarga superficial (CTI)	+ (60112)	600
	++ (60112)	600

Nota: 1 g/cm³ = 1.000 kg/m³; 1 MPa = 1 N/mm²; 1 kV/mm = 1 MV/m.

Medidas:

Redondos de Ø 50 a Ø 500 m/m, longitudes de 1000 a 3000 m/m

Planchas de espesores de 10 a 100 m/m en formatos 610*1220 / 1220*2000 / 1220*3050

Barras huecas de Ø 50 a Ø 600 m/m

Consultar medidas disponibles