

LARAMID K/40 HM

 LATI INDUSTRIA TERMOPLASTICI SPA - *Polyphthalamide*
General Information
Product Description

Compound based on Semi-aromatic polyamide (PPA). Carbon fibres. High tensile modulus. Very good thermal properties. Good chemical resistance. Low moisture absorption. PFAS-free product.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber
Features	• High Heat Resistance • PFAS Free
Uses	• High Temperature Applications

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.37	g/cm ³	ISO 1183
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	0.40 to 0.55	%	
Flow : 0.0787 in	0.050 to 0.20	%	
Water Absorption ³ (Saturation, 73°F)	0.85	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-1/1
73°F	5.37E+6	psi	
140°F	4.79E+6	psi	
194°F	4.06E+6	psi	
248°F	2.47E+6	psi	
302°F	1.38E+6	psi	
Tensile Stress			ISO 527-2/5
Break, 73°F	47900	psi	
Break, 140°F	42100	psi	
Break, 194°F	37700	psi	
Break, 248°F	26800	psi	
Break, 302°F	20300	psi	
Tensile Strain			ISO 527-2/5
Break, 73°F	1.0	%	
Break, 140°F	1.1	%	
Break, 194°F	1.2	%	
Break, 248°F	2.3	%	
Break, 302°F	2.5	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	4.8	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	33	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	572	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	554	°F	ISO 75-2/A
Vicat Softening Temperature	527	°F	ISO 306/B120
CLTE - Flow (86 to 212°F)	1.7E-6	in/in/°F	ISO 11359-2
CLTE - Transverse (86 to 212°F)	1.4E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method



Surface Resistivity	10 ohms	ASTM D257
Volume Resistivity	1.0E+2 ohms·cm	ASTM D257
Dielectric Strength (73°F, 0.0787 in, Method A (Short-Time))	76 V/mil	ASTM D149

Notes

¹ Typical properties: these are not to be construed as specifications.

² 60 MPa

³ in air

