Laramid K/40 HM

Polyphthalamide

LATI S.p.A.

Message:

Semi-aromatic polyammide (PPA) based compound.
Carbon fibre. High tensile modulus. Very good thermal properties. Good chemical resistance. Low moisture absorption.

General Information	
Filler / Reinforcement	Carbon Fiber,40% Filler by Weight
Features	Good Chemical Resistance
	High Stiffness
	Low Moisture Absorption

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm³	ISO 1183
Molding Shrinkage [1]			ISO 294-4
Across Flow : 2.00 mm	0.30 to 0.55	%	
Flow : 2.00 mm	0.050 to 0.20	%	
Water Absorption (23°C, 24 hr)	0.16	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ISO 527-2/1
23°C	36000	MPa	
60°C	32000	MPa	
90°C	27000	MPa	
120°C	20000	MPa	
150°C	12000	MPa	
Tensile Stress			ISO 527-2/5
Break, 23°C	290	MPa	
Break, 60°C	265	MPa	
Break, 90°C	245	MPa	
Break, 120°C	190	MPa	
Break, 150°C	140	MPa	
Tensile Strain			ISO 527-2/5
Break, 23°C	0.80	%	
Break, 60°C	1.0	%	
Break, 90°C	1.3	%	
Break, 120°C	2.0	%	
Break, 150°C	3.5	%	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	8.0	kJ/m²	ISO 179/1eA

Charpy Unnotched Impact Strength (23°C)	50	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	290	°C	ISO 75-2/B
1.8 MPa, Unannealed	280	°C	ISO 75-2/A
Continuous Use Temperature [2]	150	°C	
Vicat Softening Temperature	275	°C	ISO 306/B50
CLTE - Flow (30 to 100°C)	2.0E-6	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	10	ohms	ASTM D257
Volume Resistivity	1.0E+2	ohms·cm	ASTM D257
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120 to 130	°C	
Drying Time	3.0	hr	
Processing (Melt) Temp	310 to 340	°C	
Mold Temperature	150 to 170	°C	
Injection Rate	Moderate		
NOTE			
1.	60 MPa		
2.	20,000 hr		

Recommended distributors for this material

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