LARPEEK 50

LATI INDUSTRIA TERMOPLASTICI SPA - *Polyetheretherketone*

General Information

Product Description

Product made of Polyetheretherketone (PEEK). Unfilled. Intrinsically flame retardant. Very good chemical resistance. Very good thermal properties. Low smoke density and low toxicity index. PFAS-free product.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Flame Retardant	• High Heat Resistance	• PFAS Free
Uses	• High Temperature Applications		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.30	g/cm³	ISO 1183
Molding Shrinkage [2]			ISO 294-4
Across Flow : 0.0787 in	0.95 to 1.4	%	
Flow : 0.0787 in	0.85 to 1.3	%	
Water Absorption [3] (Saturation, 73°F)	0.10	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-1/1
73°F	508000	psi	
140°F	479000	psi	
194°F	464000	psi	
248°F	450000	psi	
302°F	334000	psi	
Tensile Stress			ISO 527-2/5
Yield, 73°F	13800	psi	
Yield, 140°F	11600	psi	
Yield, 194°F	10200	psi	
Yield, 248°F	7980	psi	
Yield, 302°F	5080	psi	
Tensile Stress			ISO 527-2/5
Break, 73°F	11600	psi	
Break, 140°F	10200	psi	
Break, 194°F	No Break		
Break, 248°F	No Break		
Break, 302°F	No Break		
Tensile Strain			ISO 527-2/5
Yield, 73°F	5.0	%	
Yield, 140°F	4.0	%	
Yield, 194°F	3.4	%	
Yield, 248°F	3.0	%	
Yield, 302°F	2.8	%	
Tensile Strain			ISO 527-2/5
Break, 73°F	45	%	
Break, 140°F	85	%	
Break, 194°F	> 50	%	
Break, 248°F	> 50	%	

Break, 302°F	> 50	%	
Coefficient of Friction [4]			Internal Method
Dynamic	0.26		
Static	0.32		
Wear Factor [5]	790	10^-10 in³·min/ft·lb·hr	Internal Method
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	3.8	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	No Break		ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	401	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	311	°F	ISO 75-2/A
Vicat Softening Temperature	536	°F	ISO 306/B120
CLTE - Flow (86 to 212°F)	2.5E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (86 to 212°F)	2.8E-5	in/in/°F	ISO 11359-2
Thermal Conductivity			ASTM E1461
-- [6]	2.1	Btu·in/hr/ft²/°F	
-- [7]	2.1	Btu·in/hr/ft²/°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+12	ohms	ASTM D257
Dielectric Strength (73°F, 0.0787 in, Method A (Short-Time))	560	V/mil	ASTM D149
Comparative Tracking Index [8] (Solution A)	175	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in	V-0		
0.12 in	V-0		
Glow Wire Flammability Index (0.08 in)	1760	°F	IEC 60695-2-12
Glow Wire Ignition Temperature (0.08 in)	1520	°F	IEC 60695-2-13
Oxygen Index	35	%	ASTM D2863

Notes

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

[2] 60 MPa

[3] in air

[4] ISO 7148-2 (speed 0.126 m/s, load 10N)

[5] ISO 7148-2 (speed 0.126 m/s, load 10N, path length 13.6km)

[6] through plane

[7] in plane

[8] without surfactant