

LAPEX R

LATI INDUSTRIA TERMOPLASTICI SPA - *Polyphenylsulfone*

General Information

Product Description

Product made of Polyphenylsulphone (PPSU). Unfilled. Intrinsically flame retardant. Low smoke density and low toxicity index. Very high dimensional stability. PFAS-free product.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin 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/cm ³	ISO 1183
Molding Shrinkage ²			ISO 294-4
Across Flow : 0.0787 in	0.85 to 1.1	%	
Flow : 0.0787 in	0.80 to 1.0	%	
Water Absorption			ISO 62
Saturation, 73°F ³	1.2	%	
Saturation, 73°F ⁴	0.50	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-1/1
73°F	348000	psi	
140°F	290000	psi	
194°F	276000	psi	
248°F	247000	psi	
302°F	218000	psi	
Tensile Stress			ISO 527-2/5
Yield, 73°F	10200	psi	
Yield, 140°F	9430	psi	
Yield, 194°F	7980	psi	
Yield, 248°F	7250	psi	
Yield, 302°F	5800	psi	
Tensile Stress			ISO 527-2/5
Break, 73°F	No Break		
Break, 140°F	No Break		
Break, 194°F	No Break		
Break, 248°F	No Break		
Break, 302°F	No Break		
Tensile Strain			ISO 527-2/5
Yield, 73°F	7.8	%	
Yield, 140°F	6.9	%	
Yield, 194°F	6.1	%	
Yield, 248°F	5.5	%	
Yield, 302°F	5.0	%	
Tensile Strain			ISO 527-2/5
Break, 73°F	> 50	%	
Break, 140°F	> 50	%	



Break, 194°F	> 50 %	
Break, 248°F	> 50 %	
Break, 302°F	> 50 %	
Impact	Nominal Value	Unit Test Method
Charpy Notched Impact Strength (73°F)	33	ft·lb/in ² 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)	410	°F ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	383	°F ISO 75-2/A
Vicat Softening Temperature	419	°F ISO 306/B120
CLTE - Flow (86 to 212°F)	3.1E-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
-- 5	1.4	Btu·in/hr/ft ² /°F
-- 6	1.4	Btu·in/hr/ft ² /°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))	640	V/mil ASTM D149
Comparative Tracking Index ⁷ (Solution A)	65.0	V IEC 60112
Flammability	Nominal Value	Unit Test Method
Flame Rating		UL 94
0.06 in	V-0	
0.12 in	V-0	
Oxygen Index	39 %	ASTM D2863

Notes

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

² 60 MPa

³ in water

⁴ in air

⁵ through plane

⁶ in plane

⁷ without surfactant

