

LyondellBasell Lupolen® 5621 D

Data was collected by ISO methods and originally provided by BASF. The Lupolen® product line is now produced by Basell.

Physical Properties	Metric	English	Comments
Density	0.955 g/cc	0.0345 lb/in ³	
Water Absorption	0.010 %	0.010 %	
Moisture Absorption at Equilibrium	0.010 %	0.010 %	
Melt Flow	0.265 g/10 min @Load 2.16 kg, Temperature 190 °C	0.265 g/10 min @Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	28.0 MPa	4060 psi	
Elongation at Break	>= 50 %	>= 50 %	
Elongation at Yield	9.0 %	9.0 %	
Tensile Modulus	1.20 GPa	174 ksi	
Tensile Impact Strength	120 kJ/m ²	57.1 ft-lb/in ²	
Tensile Creep Modulus, 1 hour	450 MPa	65300 psi	
Tensile Creep Modulus, 1000 hours	310 MPa	45000 psi	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	
Dielectric Constant	2.4 @Frequency 100 Hz	2.4 @Frequency 100 Hz	

	2.4 @Frequency 1e+6 Hz	2.4 @Frequency 1e+6 Hz	
Dielectric Strength	150 kV/mm	3810 kV/in	
Dissipation Factor	0.00020 @Frequency 100 Hz	0.00020 @Frequency 100 Hz	
	0.00020 @Frequency 1e+6 Hz	0.00020 @Frequency 1e+6 Hz	

Comparative Tracking Index

600 V

600 V

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	160 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 20.0 $^\circ\text{C}$	88.9 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 68.0 $^\circ\text{F}$	
Melting Point	135 $^\circ\text{C}$	275 $^\circ\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	83.0 $^\circ\text{C}$	181 $^\circ\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	45.0 $^\circ\text{C}$	113 $^\circ\text{F}$	
Vicat Softening Point	79.0 $^\circ\text{C}$	174 $^\circ\text{F}$	
Flammability, UL94	HB @Thickness 0.400 mm	HB @Thickness 0.0157 in	
Oxygen Index	17 %	17 %	