

LyondellBasell Lupolen® 5021 D

Easy flow, blow molding grade for small containers (up to 5 l), bottles for surface-active substances, household chemicals, laundry and dishwashing detergents, sanitary cleaners, cosmetics and pharmaceuticals, co-extruded bottles for food and cosmetics.

Physical Properties	Metric	English	Comments
Density	0.950 g/cc	0.0343 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	25.0 MPa	3630 psi	
Elongation at Break	>= 50 %	>= 50 %	
Elongation at Yield	9.0 %	9.0 %	
Tensile Modulus	1.00 GPa	145 ksi	
Tensile Impact Strength	130 kJ/m ²	61.9 ft-lb/in ²	
Tensile Creep Modulus, 1 hour	400 MPa	58000 psi	
Tensile Creep Modulus, 1000 hours	270 MPa	39200 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 µm/m-°C @Temperature 20.0 °C	88.9 µin/in-°F @Temperature 68.0 °F	
Melting Point	131 °C	268 °F	
Deflection Temperature at 0.46 MPa (66 psi)	75.0 °C	167 °F	
Deflection Temperature at 1.8 MPa (264 psi)	43.0 °C	109 °F	
Vicat Softening Point	78.0 °C	172 °F	
Flammability, UL94	HB @Thickness 0.400 mm	HB @Thickness 0.0157 in	
Oxygen Index	17 %	17 %	