

LyondellBasell Lupolen® 5236 HX

Medium flow, impact resistant, high stress-crack resistant grade for closures for bottles that contain carbonated liquids. This product contains a slip agent.

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	0.952 g/cc	0.0344 lb/in ³	
Water Absorption	0.010 %	0.010 %	
Moisture Absorption at Equilibrium	0.10 %	0.10 %	
Linear Mold Shrinkage, Flow	0.023 cm/cm	0.023 in/in	
Linear Mold Shrinkage, Transverse	0.024 cm/cm	0.024 in/in	
Melt Flow	3.3 g/10 min @Load 2.16 kg, Temperature 190 °C	3.3 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	1.10 GPa	160 ksi	
Tensile Impact Strength	90.0 kJ/m ²	42.8 ft-lb/in ²	

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	165 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 20.0 $^\circ\text{C}$	91.7 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 68.0 $^\circ\text{F}$	
Melting Point	133 $^\circ\text{C}$	271 $^\circ\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	73.0 $^\circ\text{C}$	163 $^\circ\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	44.0 $^\circ\text{C}$	111 $^\circ\text{F}$	
Vicat Softening Point	75.0 $^\circ\text{C}$	167 $^\circ\text{F}$	
Flammability, UL94	HB @Thickness 0.400 mm	HB @Thickness 0.0157 in	
Oxygen Index	17 %	17 %	

