

Iupilon® S-3000
Polycarbonate
Mitsubishi Engineering-Plastics Corp



Prospector

General			
Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Additive	• Ignition Resistant [S-3000V] ¹ • Mold Release [S-3000R]	• Unspecified Additive [S-3001(R)] ² • UV Stabilizer [S-3000U(R)] ³	
Features	• Flame Retardant • Food Contact Acceptable	• Good Mold Release • Good UV Resistance	• Good Weather Resistance • Low Viscosity
Agency Ratings	• FDA Unspecified Rating ⁴		

Physical	Nominal Value	Unit	Test Method
Density	1.20	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	15	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	14.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow: 3.20 mm	0.50 to 0.70	%	
Flow: 3.20 mm	0.50 to 0.70	%	
Water Absorption (24 hr, 23°C)	0.24	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2400	MPa	ISO 527-2
Tensile Stress (Yield)	62.0	MPa	ISO 527-2
Tensile Strain (Yield)	6.7	%	ISO 527-2
Nominal Tensile Strain at Break	120	%	ISO 527-2
Flexural Modulus	2300	MPa	ISO 178
Flexural Strength	93.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	67	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	139	°C	ISO 75-2/B
1.8 MPa, Unannealed	124	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	0.000065	cm/cm/°C	
Transverse	0.000066	cm/cm/°C	

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	6.0E+15	ohms	IEC 60093
Volume Resistivity	3.0E+16	ohm·cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	3.10		
1E+6 Hz	3.10		
Dissipation Factor			IEC 60250
100 Hz	0.00060		
1E+6 Hz	0.0090		
Electric Strength			IEC 60243-1
1.00 mm	31	kV/mm	
3.00 mm	18	kV/mm	

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL	V-2		UL 94

UL 746	Nominal Value	Unit	Test Method
Comparative Tracking Index (CTI) (PLC)	PLC 2		UL 746

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Notes

Tuesday, October 20, 2009

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- ¹ Provides UL94 V-2 flammability rating

 - ² Provides FDA compliance

 - ³ Provides weatherability

 - ⁴ Package S-3001(R) only

 - ⁵ Typical properties: these are not to be construed as specifications.