

Toraycon™ 5101G-15

PBT

TECHNICAL DATA

Product Description

High impact, GF15%

Uses	- Automotive Applications - Automotive Electronics - Connectors
Processing Method	Injection Molding
ISO Designation	>PBT-I-GF15<
Type	PBT/Reinforced

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.36	g/cm ³	ISO 1183
Molding Shrinkage ¹			Internal Method
Across Flow : 3.00 mm	1.50	%	
Flow : 3.00 mm	0.60	%	
Water Absorption ² (24 hr, 23°C)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	5000	MPa	ISO 527-1
Tensile Strength (23°C)	90	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	4.0	%	ISO 527-2
Flexural Modulus (23°C)	4700	MPa	ISO 178
Flexural Stress (23°C)	145	MPa	ISO 178
Coefficient of Friction - vs. Metal ³	0.14		Suzuki Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	13.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	60.0	kJ/m ²	ISO 179
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale, 23°C)	64		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	220	°C	ISO 75-2/B
1.8 MPa, Unannealed	195	°C	ISO 75-2/A
Coefficient of Linear Thermal Expansion (-30 to 100°C)	5.5	cm ³ -5/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.0E+14	ohms·m	IEC 60093
Electric Strength	22	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
23°C, 50 Hz	3.4		
23°C, 1 MHz	3.5		
Dissipation Factor			IEC 60250
23°C, 50 Hz	0.001		
23°C, 1 MHz	0.020		
Arc Resistance	110	sec	IEC 60950
Comparative Tracking Index (CTI)	PLC 0		UL 746A
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.74 mm)	HB		UL 94



Additional Information

Bar Flow Length ⁴ (250°C, 1.00 mm)

Nominal Value

85

Unit

mm

Test Method

Internal Method

Notes

¹ 80x80x3mm

² in water

³ Without Lubrication

⁴ 93MPa

Toray Industries, Inc.

