

Toraycon™ 1101G-X54 PBT

TECHNICAL DATA

Product Description

High impact, Heat cycle resistance, GF30%

Uses

- Automotive Applications
- Automotive Electronics
- Automotive Under the Hood
- Bathroom Accessories
- Batteries
- Toilet Seats

Processing Method

- Injection Molding

ISO Designation

- >PBT-I-GF30<

Type

- PBT/Reinforced

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.46	g/cm ³	ISO 1183
Molding Shrinkage ¹			Internal Method
Across Flow : 3.00 mm	1.00	%	
Flow : 3.00 mm	0.40	%	
Water Absorption ² (24 hr, 23°C)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	8500	MPa	ISO 527-1
Tensile Strength (23°C)	120	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	3.5	%	ISO 527-2
Flexural Modulus (23°C)	8000	MPa	ISO 178
Flexural Stress (23°C)	190	MPa	ISO 178
Coefficient of Friction - vs. Metal ³	0.17		Suzuki Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	17.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	65.0	kJ/m ²	ISO 179
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale, 23°C)	55		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	207	°C	ISO 75-2/A
Coefficient of Linear Thermal Expansion (-30 to 100°C)	4.2	cm ³ -5/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.4E+15	ohms·m	IEC 60093
Electric Strength	28	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
23°C, 50 Hz	3.8		
23°C, 1 MHz	3.7		
Dissipation Factor			IEC 60250
23°C, 50 Hz	0.002		
23°C, 1 MHz	0.020		
Arc Resistance	131	sec	IEC 60950
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.70 mm)	HB		UL 94
Additional Information	Nominal Value	Unit	Test Method
Bar Flow Length ⁴ (250°C, 1.00 mm)	75	mm	Internal Method