

Amilan™ CM1003G-30

Toray Industries, Inc. - Polyamide 6

General Information

Product Description

GF30%

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Abrasion Resistant • Chemical Resistant	• High Strength • Low Friction	
Uses	• Appliance Components • Automotive Applications • Automotive Electronics • Camera Applications • Cell Phones • Communication Applications	• Computer Components • Construction Applications • Displays • Electrical/Electronic Applications • Gears • Office Automation Equipment	• Printer • Pulleys • Video Equipment • White Goods & Small Appliances
Processing Method	• Injection Molding		
ISO Designation	• >PA6-(GF+XD)34<		

Properties¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.37	g/cm ³	ISO 1183
Molding Shrinkage ²			Internal Method
Across Flow : 0.118 in	0.50 to 0.80	%	
Flow : 0.118 in	0.20 to 0.40	%	
Water Absorption ³ (24 hr, 73°F)	1.1	%	ISO 62
Water Absorption ³ (Saturation, 73°F)	6.4	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (73°F)	23200	psi	ISO 527-2
Tensile Strain (Break, 73°F)	2.5	%	ISO 527-2
Flexural Modulus (73°F)	1.31E+6	psi	ISO 178
Flexural Stress (73°F)	33400	psi	ISO 178
Taber Abrasion Resistance (1000 Cycles)	24.0	mg	ISO 9352
Coefficient of Friction - vs. Metal ⁴	0.20		Suzuki Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	5.7	ft-lb/in ²	ISO 179
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 73°F)	120		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	435	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed	419	°F	ISO 75-2/A
Melting Temperature	437	°F	DSC
Coefficient of Linear Thermal Expansion	2 to 3	cm [^] -5/cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating ⁵ (Equivalent)	HB		Internal Method