



# Amilan™ CM1023 G 1000

Toray Industries, Inc. - Polyamide 6

## General Information

### Product Description

Unreinforced

### General

Features	<ul style="list-style-type: none"> <li>Abrasion Resistant</li> </ul>	<ul style="list-style-type: none"> <li>Chemical Resistant</li> </ul>	<ul style="list-style-type: none"> <li>Low Friction</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Appliance Components</li> <li>Camera Applications</li> <li>Cell Phones</li> <li>Communication Applications</li> <li>Computer Components</li> </ul>	<ul style="list-style-type: none"> <li>Construction Applications</li> <li>Displays</li> <li>Electrical/Electronic Applications</li> <li>Gears</li> <li>Office Automation Equipment</li> </ul>	<ul style="list-style-type: none"> <li>Printer</li> <li>Pulleys</li> <li>Video Equipment</li> <li>White Goods &amp; Small Appliances</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>		
ISO Designation	<ul style="list-style-type: none"> <li>&gt;PA6-XD&lt;</li> </ul>		

## Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.13	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>2</sup>			Internal Method
Across Flow : 0.118 in	1.0 to 1.6	%	
Flow : 0.118 in	0.50 to 0.90	%	
Water Absorption <sup>3</sup> (24 hr, 73°F)	1.8	%	ISO 62
Water Absorption <sup>3</sup> (Saturation, 73°F)	11	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (73°F)	10900	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	%	ISO 527-2
Flexural Modulus (73°F)	406000	psi	ISO 178
Flexural Stress (73°F)	15200	psi	ISO 178
Taber Abrasion Resistance (1000 Cycles)	6.00	mg	ISO 9352
Coefficient of Friction - vs. Metal <sup>4</sup>	0.10 to 0.15		Suzuki Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.2	ft-lb/in <sup>2</sup>	ISO 179
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 73°F)	119		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	360	°F	ISO 75-2/B
Melting Temperature	437	°F	DSC
Coefficient of Linear Thermal Expansion	9 to 10	cm <sup>-5</sup> /cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, NC)	HB		UL 94

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 80x80x3mm

<sup>3</sup> in water

<sup>4</sup> Without Lubrication