

# Amilan® CM3004G-30

Polyamide 6

Toray Resin Company

PROSPECTOR®

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## Technical Data

### Product Description

Amilan® CM3004G-30 is a Polyamide 6 (Nylon 6) product filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America. Primary characteristic: flame retardant/flame rated.

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (Japanese)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E41797-233437</a>
Search for UL Yellow Card	• <a href="#">Toray Resin Company</a> • <a href="#">Amilan®</a>
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Halogen
Features	• Halogenated

Physical	Dry	Conditioned	Unit	Test Method
Density	1.59	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage				Internal Method
Across Flow : 3.00 mm	0.60 to 0.90	--	%	
Flow : 3.00 mm	0.20 to 0.50	--	%	
Water Absorption				ISO 62
23°C, 24 hr	0.60	--	%	
Saturation, 23°C	4.0	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Stress				ISO 527-2
Yield, -40°C	190	--	MPa	
Yield, 23°C	165	135	MPa	
Yield, 80°C	110	--	MPa	
Tensile Strain				ISO 527-2
Break, -40°C	2.5	--	%	
Break, 23°C	3.0	3.0	%	
Break, 80°C	4.5	--	%	
Flexural Modulus				ISO 178
-40°C	10200	--	MPa	
23°C	9300	6500	MPa	
80°C	5500	--	MPa	
Flexural Strength				ISO 178
-40°C	275	--	MPa	
23°C	250	200	MPa	
80°C	150	--	MPa	
Taber Abrasion Resistance (1000 Cycles)	26.0	--	mg	
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-40°C	7.0	--	kJ/m <sup>2</sup>	
23°C	9.5	14	kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength (23°C)	65	70	kJ/m <sup>2</sup>	ISO 179
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C)	121	--		ISO 2039-2
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/B
0.45 MPa, Unannealed	251	--	°C	



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Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature	265	--	°C	DSC
CLTE - Flow	0.000020	--	cm/cm/°C	ISO 11359-2
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	1.0E+13	ohm·cm	IEC 60093
Electric Strength (3.00 mm)	38	33	kV/mm	IEC 60243-1
Dielectric Constant <sup>4</sup> (23°C, 1 MHz)	4.00	--		IEC 60250
Dissipation Factor <sup>4</sup> (23°C, 1 MHz)	0.010	--		IEC 60250
Arc Resistance <sup>5</sup>	70.0	--	sec	UL 746
Comparative Tracking Index (CTI)	200	--	V	UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.397 mm)	V-0	--		UL 94

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 60% RH

<sup>5</sup> Tungsten Electrode



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### Where to Buy

#### Supplier

##### Toray Resin Company

Tokyo 103-8666, Japan

Telephone: 03-3245-5569

Web: <http://www.toray.com/>

#### Distributor

Please contact the supplier to find a distributor for Amilan® CM3004G-30



# PROSPECTOR®

Founded in 1986 and based in Laramie, Wyoming, IDES is now part of the UL family of companies. UL is a premier global independent safety science company with more than a century of proven history. Employing nearly 10,000 professionals in over 100 countries, UL has five distinct business units -- Product Safety, Environment, Life & Health, Knowledge Services and Verification Services -- to meet the expanding needs of our customers and to deliver on our public safety mission.



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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