

Amilan® CM3001G30

Polyamide 66
Toray Resin Company

Message:

Amilan® CM3001G30 is a Polyamide 66 (Nylon 66) product filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America. Typical application: Automotive. Primary characteristic: flame rated.

General Information				
UL YellowCard		E41797-233430		
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Part Marking Code		>PA66-GF30<		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.37	--	g/cm ³	ISO 1183
Molding Shrinkage				Internal Method
Across Flow : 3.00 mm ¹	0.60 to 0.90	--	%	
Flow : 3.00 mm ²	0.20 to 0.50	--	%	
Water Absorption				ISO 62
23°C, 24 hr	0.60	--	%	
Saturation, 23°C	5.5	--	%	
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness				ISO 2039-2
M-Scale, 23°C	97	--		
R-Scale, 23°C	121	--		
R-Scale, 80°C	24	--		
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Stress				ISO 527-2
-40°C	235	215	MPa	
23°C	190	140	MPa	
80°C	120	100	MPa	
Tensile Strain				ISO 527-2
Break, -40°C	2.0	2.5	%	
Break, 23°C	2.5	3.0	%	
Break, 80°C	5.0	5.5	%	
Flexural Modulus				ISO 178
-40°C	11600	10500	MPa	
23°C	9500	6800	MPa	
80°C	5800	4300	MPa	
Flexural Stress				ISO 178
-40°C	325	315	MPa	
23°C	290	215	MPa	

80°C	190	135	MPa	
Compressive Stress				ISO 604
-40°C	250	200	MPa	
23°C	180	110	MPa	
80°C	110	70.0	MPa	
Shear Strength (23°C)	95.0	85.0	MPa	ASTM D732
Taber Abrasion Resistance (1000 Cycles)	0.400	--	mg	ISO 9352
Coefficient of Friction - vs. Metal ³	0.150	--		Suzuki Method
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-40°C	10	12	kJ/m ²	
23°C	13	16	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-40°C	60	70	kJ/m ²	
23°C	65	75	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	262	--	°C	ISO 75-2/B
Melting Temperature	265	--	°C	DSC
CLTE - Flow	2.0E-5 to 3.0E-5	--	cm/cm/°C	ISO 11359-2
Specific Heat	1800	--	J/kg/°C	
Thermal Conductivity	0.40	--	W/m/K	
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	1.0E+12 to 1.0E+13	ohms·cm	IEC 60093
Electric Strength	20	17	kV/mm	IEC 60243-1
Dielectric Constant ⁴				IEC 60250
23°C, 50 Hz	4.60	6.30		
23°C, 1 kHz	4.40	5.50		
23°C, 1 MHz	3.90	4.00		
Dissipation Factor ⁵				IEC 60250
23°C, 50 Hz	0.020	0.080		
23°C, 1 kHz	0.020	0.080		
23°C, 1 MHz	0.020	0.040		
Arc Resistance ⁶	114	120	sec	UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.794 mm)	HB	--		UL 94
NOTE				
1.	80x80x3			
2.	80x80x3mm			

3.	Without Lubrication
4.	60% RH
5.	60% RH
6.	Tungsten Electrode

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