

Amilan™ CM3001G-15 Nylon 66

TECHNICAL DATA

Product Description

Standard, GF15%

Uses

- Appliance Components
- Automotive Applications
- Construction Applications
- Electrical/Electronic Applications
- Gears
- Office Automation Equipment
- Power/Other Tools
- Sporting Goods
- White Goods & Small Appliances

Processing Method

- Injection Molding

ISO Designation

- >PA66-GF15<

Type

- Nylon66/Reinforced

ASTM & ISO Properties

Physical	Dry	Water Absorption	Unit	Test Method
Density (23°C)	1.26	--	g/cm³	ISO 1183
Spiral Flow ¹	520	--	mm	Internal Method
Molding Shrinkage ²				Internal Method
Across Flow : 3.00 mm	1.00 to 1.40	--	%	
Flow : 3.00 mm	0.70 to 1.00	--	%	
Water Absorption ³				ISO 62
24 hr, 23°C	1.0	--	%	
Saturation, 23°C	7.2	--	%	
Mechanical	Dry	Water Absorption	Unit	Test Method
Tensile Strength				ISO 527-2
-40°C	155	145	MPa	
23°C	110	90	MPa	
80°C	65	50	MPa	
Tensile Strain				ISO 527-2
Break, -40°C	2.0	--	%	
Break, 23°C	2.0	4.5	%	
Break, 80°C	7.5	--	%	
Flexural Modulus				ISO 178
-40°C	6600	6300	MPa	
23°C	5800	3700	MPa	
80°C	2800	2200	MPa	
Flexural Stress				ISO 178
-40°C	225	190	MPa	
23°C	180	135	MPa	
80°C	115	85	MPa	
Shear Strength (23°C)	80	--	MPa	ASTM D732
Impact	Dry	Water Absorption	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	6.0	--	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179
23°C	30.0	--	kJ/m²	



Hardness	Dry	Water Absorption	Unit	Test Method
Rockwell Hardness				ISO 2039-2
M-Scale, 23°C	95	--		
R-Scale, 23°C	120	--		
Thermal	Dry	Water Absorption	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/A
1.8 MPa, Unannealed	245	--	°C	
Melting Temperature	265	--	°C	DSC
Specific Heat	2000	--	J/kg/°C	
Thermal Conductivity	0.36	--	W/m/K	
Coefficient of Linear Thermal Expansion	4	--	cm ⁻⁵ /cm/°C	ISO 11359-2
Electrical	Dry	Water Absorption	Unit	Test Method
Volume Resistivity	1.0E+13	1.0E+10 to 1.0E+11	ohms·m	IEC 60093
Electric Strength	20	--	kV/mm	IEC 60243-1
Dielectric Constant				IEC 60250
23°C, 50 Hz	4.3	--		
23°C, 1 kHz	4.1	--		
23°C, 1 MHz	3.6	--		
Dissipation Factor				IEC 60250
23°C, 50 Hz	0.040	--		
23°C, 1 kHz	0.040	--		
23°C, 1 MHz	0.040	--		
Flammability	Dry	Water Absorption	Unit	Test Method
Flame Rating (0.75 mm)	HB	HB		UL 94
Additional Information				
Dry	Water Absorption Moisture Content 1.9%			

Notes

¹ Melt Temperature: 290°C, Injection Pressure: 900 bar, 2.00 mm

² 80x80x3mm

³ in water

Toray Industries, Inc.

