

Amilan™ CM2001 L

Nylon 610

TECHNICAL DATA

Product Description

Standard

Uses

- Appliance Components
- Construction Applications
- Electrical/Electronic Applications
- Film
- Monofilaments
- Office Automation Equipment
- Sporting Goods
- Transparent or Translucent Parts
- White Goods & Small Appliances

Processing Method

- Filament Extrusion
- Film Extrusion
- Injection Molding
- Sheet Extrusion

ISO Designation

- >PA610<

Type

- Nylon610

ASTM & ISO Properties

Physical	Dry	Water Absorption	Unit	Test Method
Density (23°C)	1.08	--	g/cm ³	ISO 1183
Molding Shrinkage				Internal Method
1.00 mm ¹	0.30 to 0.70	--	%	
3.00 mm ²	0.70 to 1.30	--	%	
Water Absorption ³				ISO 62
24 hr, 23°C	0.30	--	%	
Saturation, 23°C	4.0	--	%	
Mechanical	Dry	Water Absorption	Unit	Test Method
Tensile Strength				ISO 527-2
-40°C	85	--	MPa	
23°C	55	40	MPa	
80°C	25	--	MPa	
Tensile Strain (Break, 23°C)	> 50	> 50	%	ISO 527-2
Flexural Modulus				ISO 178
-40°C	2300	--	MPa	
23°C	2000	900	MPa	
80°C	500	--	MPa	
Flexural Stress (23°C)	95	55	MPa	ISO 178
Compressive Stress (23°C)	65	--	MPa	ISO 604
Shear Strength (23°C)	50	45	MPa	ASTM D732
Taber Abrasion Resistance				ISO 9352
1000 Cycles	4	--	mg	
Impact	Dry	Water Absorption	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
23°C	4.0	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
23°C	No Break	No Break		
Hardness	Dry	Water Absorption	Unit	Test Method
Rockwell Hardness				ISO 2039-2
R-Scale, 23°C	116	--		



Thermal	Dry	Water Absorption	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
0.45 MPa, Unannealed	180	--	°C	
Melting Temperature	225	--	°C	DSC
Specific Heat	1900	--	J/kg/°C	
Thermal Conductivity	0.25	--	W/m/K	
Coefficient of Linear Thermal Expansion	12	--	cm ⁻⁵ /cm/°C	ISO 11359-2

Electrical	Dry	Water Absorption	Unit	Test Method
Volume Resistivity	1.0E+11 to 1.0E+12	--	ohms·m	IEC 60093
Dielectric Constant				IEC 60250
23°C, 50 Hz	3.9	--		
23°C, 1 kHz	3.6	--		
23°C, 1 MHz	3.1	--		
Dissipation Factor				IEC 60250
23°C, 50 Hz	0.040	--		
23°C, 1 kHz	0.040	--		
23°C, 1 MHz	0.020	--		

Additional Information

Dry Water absorption Moisture Content 1.5%

Notes

¹ 80x80x1mm

² 80x80x3mm

³ in water

Toray Industries, Inc.

