

Amilan™ CM1026

Nylon 6

TECHNICAL DATA

Product Description

Medium viscosity, Heat stabilized

Uses

- Automotive Applications
- Automotive Electronics
- Automotive Interior Parts
- Furniture
- Safety Equipment

Processing Method

- Injection Molding

ISO Designation

- >PA6<

Type

- Nylon6/Unreinforced

ASTM & ISO Properties

Physical	Dry	Water Absorption	Unit	Test Method
Density (23°C)	1.13	--	g/cm ³	ISO 1183
Spiral Flow ¹	350	--	mm	Internal Method
Molding Shrinkage				Internal Method
1.00 mm ²	0.40 to 0.90	--	%	
3.00 mm ³	0.80 to 1.60	--	%	
Water Absorption ⁴				ISO 62
24 hr, 23°C	1.8	--	%	
Saturation, 23°C	10.5	--	%	
Mechanical	Dry	Water Absorption	Unit	Test Method
Tensile Strength				ISO 527-2
-40°C	110	100	MPa	
23°C	80	35	MPa	
80°C	25	20	MPa	
Tensile Strain				ISO 527-2
Yield, 23°C	1.5	--	%	
Break, 23°C	> 50	> 50	%	
Flexural Modulus				ISO 178
-40°C	3800	3600	MPa	
23°C	2600	800	MPa	
80°C	700	300	MPa	
Flexural Stress				ISO 178
-40°C	135	125	MPa	
23°C	110	40	MPa	
80°C	40	25	MPa	
Compressive Stress (23°C)	80	--	MPa	ISO 604
Shear Strength (23°C)	70	65	MPa	ASTM D732
Taber Abrasion Resistance				ISO 9352
1000 Cycles	3 to 4	--	mg	
Coefficient of Friction - vs. Metal ⁵	0.15 to 0.20	--		Suzuki Method



Impact	Dry	Water Absorption	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-40°C	4.0	--	kJ/m ²	
23°C	6.0	> 40.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179
-40°C	No Break	--		
23°C	No Break	--		
Hardness	Dry	Water Absorption	Unit	Test Method
Rockwell Hardness				ISO 2039-2
R-Scale, 23°C	119	90		
R-Scale, 80°C	80	--		
Thermal	Dry	Water Absorption	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
0.45 MPa, Unannealed	182	--	°C	
Melting Temperature	225	--	°C	DSC
Specific Heat	1900	--	J/kg/°C	
Thermal Conductivity	0.25	--	W/m/K	
Coefficient of Linear Thermal Expansion	8	--	cm ³ /cm/°C	ISO 11359-2
Electrical	Dry	Water Absorption	Unit	Test Method
Volume Resistivity	1.0E+11 to 1.0E+12	1.0E+9 to 1.0E+10	ohms·m	IEC 60093
Flammability	Dry	Water Absorption	Unit	Test Method
Flame Rating (1.5 mm)	HB	HB		UL 94
Additional Information				
Dry	Conditioned Moisture Content 3.5%			

Notes

¹ Melt Temperature: 260°C, Injection Pressure: 900 bar, 2.00 mm

² 80x80x1mm

³ 80x80x3mm

⁴ in water

⁵ Without Lubrication

Toray Industries, Inc.

