Amilan™ CM1014-V0

Toray Industries, Inc. - Polyamide 6

General Information			
Product Description			
Unreinforced, Non-halogen			
General			
Additive	• Flame Retardant		
Features	• Chemical Resistant	• Flame Retardant	• Halogen Free
Uses	• Appliances • Camera Applications • Cell Phones • Communication Applications • Computer Components • Connectors	• Displays • Electrical Housing • Electrical/Electronic Applications • Insulation • Lighting Applications • Office Automation Equipment	• Printer • Switches • Video Equipment • White Goods & Small Appliances
Processing Method	• Injection Molding		
ISO Designation	• >PA6-FR(30)<		

Properties [1]				
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (73°F)	1.18	--	g/cm³	ISO 1183
Molding Shrinkage				Internal Method
0.0394 in [2]	0.40 to 0.80	--	%	
0.118 in [3]	1.0 to 1.3	--	%	
Water Absorption [4] (24 hr, 73°F)	1.7	--	%	ISO 62
Water Absorption [4]				ISO 62
Saturation, 73°F	9.5	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Stress				ISO 527-2
73°F	11600	6530	psi	
176°F	5800	--	psi	
Tensile Strain				ISO 527-2
Break, 73°F	7.5	37	%	
Break, 176°F	56	--	%	
Flexural Modulus				ISO 178
73°F	508000	174000	psi	
176°F	145000	--	psi	
Flexural Stress				ISO 178
-40°F	21800	--	psi	
73°F	16700	6530	psi	
176°F	7980	--	psi	
Taber Abrasion Resistance				ISO 9352
1000 Cycles	5.00 to 6.00	--	mg	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
-40°F	1.7	--	ft·lb/in²	
73°F	2.1	10	ft·lb/in²	

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Impact	Dry	Conditioned	Unit	Test Method
Charpy Unnotched Impact Strength				ISO 179
73°F	57 ft·lb/in²	No Break		
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Rockwell Hardness				ISO 2039-2
R-Scale, 73°F	120	--		
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load				ISO 75-2/B
66 psi, Unannealed	405	--	°F	
Melting Temperature	437	--	°F	DSC
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity	1.0E+15	--	ohms·cm	IEC 60093
Electric Strength	760	--	V/mil	IEC 60243-1
Dielectric Constant				IEC 60250
73°F, 1 MHz	5.20	--		
Dissipation Factor (73°F, 1 MHz)	0.080	--		IEC 60250
Arc Resistance	120	--	sec	UL 746
Comparative Tracking Index (CTI)	> 600	--	V	UL 746A
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Flame Rating (0.028 in)	V-0	V-0		UL 94
Additional Information				
Dry	Water absorption Moisture Content 3.0%			

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 80x80x1mm

[3] 80x80x3mm

[4] in water