Amilan™ CM1046 K4

Toray Industries, Inc. - Polyamide 6

General Information			
Product Description			
High viscosity, High impact			
General			
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Chemical Resistant	• High Impact Resistance	• High Strength
Uses	• Automotive Applications	• Blow Molding Applications	• Bottles
Processing Method	• Blow Molding		
ISO Designation	• >PA6-GF20<		

Properties [1]				
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (73°F)	1.29	--	g/cm³	ISO 1183
Water Absorption [2] (24 hr, 73°F)	1.3	--	%	ISO 62
Water Absorption [2]				ISO 62
Saturation, 73°F	7.5	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Stress				ISO 527-2
-40°F	28300	--	psi	
73°F	17400	10200	psi	
176°F	10200	--	psi	
Tensile Strain				ISO 527-2
Break, -40°F	2.5	--	%	
Break, 73°F	3.0	9.0	%	
Break, 176°F	4.5	--	%	
Flexural Modulus				ISO 178
-40°F	899000	--	psi	
73°F	841000	377000	psi	
176°F	435000	--	psi	
Flexural Stress				ISO 178
-40°F	39200	--	psi	
73°F	26800	14500	psi	
176°F	13100	--	psi	
Taber Abrasion Resistance				ISO 9352
1000 Cycles	12.0	--	mg	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
-40°F	2.9	--	ft·lb/in²	
73°F	3.6	10	ft·lb/in²	
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Rockwell Hardness				ISO 2039-2
R-Scale, 73°F	120	--		

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
66 psi, Unannealed	419	--	°F	
Deflection Temperature Under Load				ISO 75-2/A
264 psi, Unannealed	365	--	°F	
Melting Temperature	437	--	°F	DSC
Coefficient of Linear Thermal Expansion	3 to 4	--	cm^-5/cm/°C	ISO 11359-2
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Volume Resistivity	1.0E+15	--	ohms·cm	IEC 60093
Electric Strength	510	--	V/mil	IEC 60243-1
Additional Information				
Dry	Water absorption Moisture Content 2.8%			

Notes

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

[2] in water