Amilan™ CM1056

Toray Industries, Inc. - Polyamide 6

General Information		
Product Description		
High viscosity, High impact		
General		
Features	• Chemical Resistant	• High Impact Resistance
Uses	• Automotive Applications • Blow Molding Applications	• Bottles • Tubing
Processing Method	• Blow Molding	
ISO Designation	• >PA6-I<	

Properties [1]				
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density (73°F)	1.09	--	g/cm³	ISO 1183
Water Absorption [2] (24 hr, 73°F)	1.7	--	%	ISO 62
Water Absorption [2]				ISO 62
Saturation, 73°F	8.0	--	%	
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Stress				ISO 527-2
-40°F	15200	13800	psi	
73°F	8700	5080	psi	
176°F	3630	2900	psi	
Tensile Strain				ISO 527-2
Break, -40°F	3.5	1.0	%	
Break, 73°F	> 50	> 50	%	
Break, 176°F	> 50	> 50	%	
Flexural Modulus				ISO 178
-40°F	421000	--	psi	
73°F	305000	102000	psi	
176°F	72500	--	psi	
Flexural Stress				ISO 178
-40°F	18900	--	psi	
73°F	11600	--	psi	
Taber Abrasion Resistance				ISO 9352
1000 Cycles	6.00 to 7.00	--	mg	
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
-40°F	6.4	--	ft·lb/in²	
73°F	7.6	26	ft·lb/in²	
Charpy Unnotched Impact Strength				ISO 179
73°F	No Break	--		
Hardness	**Dry**	**Conditioned**	**Unit**	**Test Method**
Rockwell Hardness				ISO 2039-2
R-Scale, 73°F	114	--		

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Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2/B
66 psi, Unannealed	320	--	°F	
Deflection Temperature Under Load				ISO 75-2/A
264 psi, Unannealed	124	--	°F	
Melting Temperature	437	--	°F	DSC
Coefficient of Linear Thermal Expansion	8 to 9	--	cm^-5/cm/°C	ISO 11359-2

Additional Information	
Dry	Water absorption Moisture Content 3.0%

Notes

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

[2] in water