TORAY
Innovation by Chemistry

AMILAN™

Amilan™ CM1046 K4
Nylon 6

TECHNICAL DATA

Product Description

High viscosity, High impact

Uses	• Automotive Applications	• Blow Molding Applications	• Bottles
Processing Method	• Blow Molding		
ISO Designation	• >PA6-GF20<		
Type	• Nylon6/Blow molding		

ASTM & ISO Properties

Physical	Dry	Water Absorption	Unit	Test Method
Density (23°C)	1.29	--	g/cm³	ISO 1183
Water Absorption [1]				ISO 62
24 hr, 23°C	1.3	--	%	
Saturation, 23°C	7.5	--	%	
Mechanical	**Dry**	**Water Absorption**	**Unit**	**Test Method**
Tensile Strength				ISO 527-2
-40°C	195	--	MPa	
23°C	120	70	MPa	
80°C	70	--	MPa	
Tensile Strain				ISO 527-2
Break, -40°C	2.5	--	%	
Break, 23°C	3.0	9.0	%	
Break, 80°C	4.5	--	%	
Flexural Modulus				ISO 178
-40°C	6200	--	MPa	
23°C	5800	2600	MPa	
80°C	3000	--	MPa	
Flexural Stress				ISO 178
-40°C	270	--	MPa	
23°C	185	100	MPa	
80°C	90	--	MPa	
Taber Abrasion Resistance				ISO 9352
1000 Cycles	12	--	mg	
Impact	**Dry**	**Water Absorption**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179
-40°C	6.0	--	kJ/m²	
23°C	7.5	22.0	kJ/m²	
Hardness	**Dry**	**Water Absorption**	**Unit**	**Test Method**
Rockwell Hardness				ISO 2039-2
R-Scale, 23°C	120	--		

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Thermal	Dry	Water Absorption	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	215	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	185	--	°C	ISO 75-2/A
Melting Temperature	225	--	°C	DSC
Coefficient of Linear Thermal Expansion	3 to 4	--	cm^-5/cm/°C	ISO 11359-2

Electrical	Dry	Water Absorption	Unit	Test Method
Volume Resistivity	1.0E+13	--	ohms·m	IEC 60093
Electric Strength	20	--	kV/mm	IEC 60243-1

Additional Information	
Dry	Water absorption Moisture Content 2.8%

Notes

[1] in water

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