

Property	Test Condition	Test Method ISO	Units	Nylon6/Reinforced	
				Standard, GF45%	
				CM1011G-45	
				>PA6-GF45<	
				Dry	1.9%water
Physical property					
Water Absorption	24hrs. in 23℃ water	ISO 62	%	0.9	-
Water Absorption	23℃ in water	ISO 62	%	5.3	-
Density	23℃	ISO 1183	kg/m ³	1500	
Mechanical property					
Tensile strength	-40℃	ISO 527-1,2	MPa	290	250
Tensile strength	23℃	ISO 527-1,2	MPa	205	130
Tensile strength	80℃	ISO 527-1,2	MPa	120	85
Elongation at Break	-40℃	ISO 527-1,2	%	3	3
Elongation at Break	23℃	ISO 527-1,2	%	3	3
Elongation at Break	80℃	ISO 527-1,2	%	5	5
Flexural Strength	-40℃	ISO 178	MPa	385	325
Flexural Strength	23℃	ISO 178	MPa	340	210
Flexural Strength	80℃	ISO 178	MPa	185	125
Flexural Modulus	-40℃	ISO 178	GPa	16.1	14.3
Flexural Modulus	23℃	ISO 178	GPa	13.8	8.1
Flexural Modulus	80℃	ISO 178	GPa	7.1	5
Compressive Strength	-40℃	ISO 604	MPa	260	220
Compressive Strength	23℃	ISO 604	MPa	190	120
Compressive Strength	80℃	ISO 604	MPa	100	70
Coefficient of friction (Without lubrication)	Vs metal	Suzuki Method	-	0.15	-
Shear Strength	23℃	ASTM D732	MPa	95	75
Rockwell Hardness	23℃	ISO 2039-2	R Scale	R121,M95	-
Rockwell Hardness	80℃	ISO 2039-2	R Scale	30	-
Taper Abrasion		ISO 9352	mg/1000times	0.35	-
Charpy Impact Strength (V-notched)	-40℃	ISO 179	kJ/m ²	15	17
Charpy Impact Strength (V-notched)	23℃	ISO 179	kJ/m ²	18.5	23
Charpy Impact Strength (Unnotched)	-40℃	ISO 179	kJ/m ²	90	95
Charpy Impact Strength (Unnotched)	23℃	ISO 179	kJ/m ²	100	120
Heat property					
Melting Point		DSC Method	℃	225	-
Specific Heat		-	J/g · ℃	1.4	-
Thermal Conductivity		-	W/m · ℃	0.4	-
Coef of Linear Thermal Expansion		ISO 11359-2	×10 ⁻⁵ /℃	2~3	-
Heat Deflection Temp Low Load	0.45MPa	ISO 75-1,2	℃	225	-
Flammability		UL94	rank/thickness m mt	HB(1/16")	HB(1/16")
Electrical property					
Volume Resistivity		IEC 60093	Ω · m	10 ¹³	10 ¹⁰
Dielectric Strength		IEC 60243-1	MV/m	19	15
Dielectric Constant	23℃、60% RH、50Hz	IEC 60250	-	5	9.5
Dielectric Constant	23℃、60% RH、1KHz	IEC 60250	-	4.9	7.4
Dielectric Constant	23℃、60% RH、1MHz	IEC 60250	-	4.2	4.5
Dissipation Factor	23℃、60% RH、50Hz	IEC 60250	-	0.03	0.16
Dissipation Factor	23℃、60% RH、1KHz	IEC 60250	-	0.03	0.15
Dissipation Factor	23℃、60% RH、1MHz	IEC 60250	-	0.03	0.06
Arc resistance	Tungsten Electrode	UL-746A	sec.	104	109
Molding property					
Mold shrinkage(Machine Direction)	80×80×3mmt	Toray Method	%	0.1~0.3	-
Mold shrinkage(Transverse Direction)	80×80×3mmt	Toray Method	%	0.4~0.6	-

These values are typical data for this product under specific test conditions and not intended for use as limiting specifications.

