

Property	Test Condition	Test Method ISO	Units	Nylon6/Reinforced	
				Standard, GF30%	
				CM1011G-30	
				>PA6-GF30<	
				Dry	2.5%water
Physical property					
Water Absorption	24hrs. in 23℃ water	ISO62	%	1.1	-
Water Absorption	23℃ in water	ISO62	%	6.4	
Density	23℃	ISO1183	kg/m ³	1360	-
Mechanical property					
Tensile strength	-40℃	ISO527-1,2	MPa	250	225
Tensile strength	23℃	ISO527-1,2	MPa	185	105
Tensile strength	80℃	ISO527-1,2	MPa	100	70
Elongation at Break	-40℃	ISO527-1,2	%	3	3
Elongation at Break	23℃	ISO527-1,2	%	3	4
Elongation at Break	80℃	ISO527-1,2	%	4	4.5
Flexural Strength	-40℃	ISO178	MPa	325	315
Flexural Strength	23℃	ISO178	MPa	280	145
Flexural Strength	80℃	ISO178	MPa	155	105
Flexural Modulus	-40℃	ISO178	GPa	11.8	9.8
Flexural Modulus	23℃	ISO178	GPa	9.5	5.1
Flexural Modulus	80℃	ISO178	GPa	4.7	3.5
Compressive Strength	-40℃	ISO604	MPa	250	210
Compressive Strength	23℃	ISO604	MPa	180	120
Compressive Strength	80℃	ISO604	MPa	95	70
Coefficient of friction (Without lubrication)	Vs metal	Suzuki Method	-	0.15	-
Shear Strength	23℃	ASTM D732	MPa	85	-
Rockwell Hardness	23℃	ISO2039-2	R Scale	R120,M93	-
Rockwell Hardness	80℃	ISO2039-2	R Scale	12	-
Taper Abrasion		ISO9352	mg/1000times	0.35	
Charpy Impact Strength (V-notched)	-40℃	ISO179	kJ/m ²	10	16.5
Charpy Impact Strength (V-notched)	23℃	ISO179	kJ/m ²	15	22.5
Charpy Impact Strength (Unnotched)	-40℃	ISO179	kJ/m ²	70	80
Charpy Impact Strength (Unnotched)	23℃	ISO179	kJ/m ²	80	100
Heat property					
Melting Point		DSC Method	℃	225	-
Specific Heat		-	J/g · ℃	1.6	-
Thermal Conductivity		-	W/m · ℃	0.38	-
Coef of Linear Thermal Expansion		ISO11359-2	×10 ⁻⁵ /℃	2~3	-
Heat Deflection Temp Low Load	0.45MPa	ISO75-1,2	℃	224	-
Flammability		UL94	rank/thickness mmt	HB(1/32")	HB(1/32")
Electrical property					
Volume Resistivity		IEC60093	Ω · m	10 ¹³	10 ¹⁰

Dielectric Strength		IEC60243-1	MV/m	20	18
Dielectric Constant	23℃、60%RH、50Hz	IEC 60250	-	4.9	10.7
Dielectric Constant	23℃、60%RH、1KHz	IEC 60250	-	4.6	7.9
Dielectric Constant	23℃、60%RH、1MHz	IEC 60250	-	4	4.3
Dissipation Factor	23℃、60%RH、50Hz	IEC 60250	-	0.03	0.17
Dissipation Factor	23℃、60%RH、1KHz	IEC 60250	-	0.03	0.18
Dissipation Factor	23℃、60%RH、1MHz	IEC 60250	-	0.03	0.07
Arc resistance	Tungsten Electrode	UL-746A	sec.	131	137
Molding property					
Mold shrinkage(Machine Direction)	80×80×3mmt	Toray Method	%	0.2~0.4	-
Mold shrinkage(Transverse Direction)	80×80×3mmt	Toray Method	%	0.5~0.8	-
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Generic Component/Livingware	Automobile	housing equipment
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