

Property	Test Condition	Test Method ISO	Units	Co-polymer Nylon/GF Reinforced	Co-polymer Nylon/GF Reinforced	Co-polymer Nylon/GF Reinforced	Co-polymer Nylon/GF Reinforced	Co-polymer Nylon/GF Reinforced
				Good Appearance, GF33%	Good Appearance, High flow, GF50%	Good Appearance, GF60%	Good Appearance, Weather Resistance, GF33%	Good Appearance, GF50%
				CM3511G33	CM3511G50	CM3511G60	CM3516G33	CM3501G50
				>PA-GF33<	>PA-GF50<	>PA-GF60<	>PA-GF33<	>PA-GF50<
				Dry	Dry	Dry	Mineral reinforced Nylon66	1.2%water
Physical property								
Water Absorption	24hrs. in 23℃ water	ISO62	%	0.5	0.3	0.2	0.5	0.3
Water Absorption	23℃ in water	ISO62	%	-	-	-	-	-
Density	23℃	ISO1183	kg/m ³	1400	1590	1700	1400	1590
Mechanical property								
Tensile strength	-40℃	ISO527-1,2	MPa	-	-	-	-	-
Tensile strength	23℃	ISO527-1,2	MPa	160	210	255	160	205
Tensile strength	80℃	ISO527-1,2	MPa	-	-	-	-	-
Elongation at Break	-40℃	ISO527-1,2	%	-	-	-	-	-
Elongation at Break	23℃	ISO527-1,2	%	2.8	3.2	2.4	2.8	3.2
Elongation at Break	80℃	ISO527-1,2	%	-	-	-	-	-
Flexural Strength	-40℃	ISO178	MPa	-	-	-	-	-
Flexural Strength	23℃	ISO178	MPa	245	320	390	245	315
Flexural Strength	80℃	ISO178	MPa	-	-	-	-	-
Flexural Modulus	-40℃	ISO178	GPa	-	-	-	-	-
Flexural Modulus	23℃	ISO178	GPa	9.3	14.5	19.5	9.3	14.2
Flexural Modulus	80℃	ISO178	GPa	-	-	-	-	-
Compressive Strength	-40℃	ISO604	MPa	-	-	-	-	-
Compressive Strength	23℃	ISO604	MPa	-	-	-	-	-
Compressive Strength	80℃	ISO604	MPa	-	-	-	-	-
Coefficient of friction (Without lubrication)	Vs metal	Suzuki Method	-	-	-	-	-	-
Shear Strength	23℃	ASTM D732	MPa	-	-	-	-	-
Rockwell Hardness	23℃	ISO2039-2	R Scale	-	-	-	-	-
Rockwell Hardness	80℃	ISO2039-2	R Scale	-	-	-	-	-
Taper Abrasion		ISO9352	mg/1000times	-	-	-	-	-
Charpy Impact Strength (V-notched)	-40℃	ISO179	kJ/m ²	-	-	-	-	-
Charpy Impact Strength (V-notched)	23℃	ISO179	kJ/m ²	23.9	28.2	22.2	23.9	23.1
Charpy Impact Strength (Unnotched)	-40℃	ISO179	kJ/m ²	-	-	-	-	-
Charpy Impact Strength (Unnotched)	23℃	ISO179	kJ/m ²	-	-	-	-	-
Heat property								
Melting Point		DSC Method	℃	216	216	216	216	228
Specific Heat		-	J/g · ℃	1.5	1.5	1.5	1.5	1.5
Thermal Conductivity		-	W/m · ℃	0.4	0.4	0.4	0.4	0.4
Coef of Linear Thermal Expansion		ISO11359-2	×10 ⁻⁵ /℃	2~3	2~3	2~3	2~3	2~3
Heat Deflection Temp Low Load	0.45MPa	ISO75-1,2	℃	-	215	-	-	223
Flammability		UL94	rank/thickness mm	HB	HB	HB	HB	HB
Electrical property								
Volume Resistivity		IEC60093	Ω · m	10 ¹⁰ ~10 ¹¹	10 ¹⁰ ~10 ¹¹	10 ¹⁰ ~10 ¹¹	10 ¹⁰ ~10 ¹¹	10 ¹⁰ ~10 ¹¹
Dielectric Strength		IEC60243-1	MV/m	-	-	-	-	-
Dielectric Constant	23℃、60%RH、50Hz	IEC 60250	-	-	-	-	-	-
Dielectric Constant	23℃、60%RH、1KHz	IEC 60250	-	-	-	-	-	-
Dielectric Constant	23℃、60%RH、1MHz	IEC 60250	-	-	-	-	-	-
Dissipation Factor	23℃、60%RH、50Hz	IEC 60250	-	-	-	-	-	-
Dissipation Factor	23℃、60%RH、1KHz	IEC 60250	-	-	-	-	-	-
Dissipation Factor	23℃、60%RH、1MHz	IEC 60250	-	-	-	-	-	-
Arc resistance	Tungsten Electrode	UL-746A	sec.	-	-	-	-	-
Molding property								
Mold shrinkage(Machine Direction)	80×80×3mm	Toray Method	%	0.3~0.5	0.2~0.4	0.2~0.4	0.3~0.5	0.2~0.4
Mold shrinkage(Transverse Direction)	80×80×3mm	Toray Method	%	0.5~0.7	0.5~0.7	0.5~0.7	0.5~0.7	0.5~0.7

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