

Property	Test Condition	Test Method ISO	Units	Co-polymer Nylon/GF Reinforced
				Good Appearance, GF33%
				CM3511G33
				>PA-GF33<
				Dry
Physical property				
Water Absorption	24hrs. in 23℃ water	ISO 62	%	0.5
Water Absorption	23℃ in water	ISO 62	%	-
Density	23℃	ISO 1183	kg/m ³	1400
Mechanical property				
Tensile strength	-40℃	ISO 527-1,2	MPa	-
Tensile strength	23℃	ISO 527-1,2	MPa	160
Tensile strength	80℃	ISO 527-1,2	MPa	-
Elongation at Break	-40℃	ISO 527-1,2	%	-
Elongation at Break	23℃	ISO 527-1,2	%	2.8
Elongation at Break	80℃	ISO 527-1,2	%	-
Flexural Strength	-40℃	ISO 178	MPa	-
Flexural Strength	23℃	ISO 178	MPa	245
Flexural Strength	80℃	ISO 178	MPa	-
Flexural Modulus	-40℃	ISO 178	GPa	-
Flexural Modulus	23℃	ISO 178	GPa	9.3
Flexural Modulus	80℃	ISO 178	GPa	-
Compressive Strength	-40℃	ISO 604	MPa	-
Compressive Strength	23℃	ISO 604	MPa	-
Compressive Strength	80℃	ISO 604	MPa	-
Coefficient of friction (Without lubrication)	Vs metal	Suzuki Method	-	-
Shear Strength	23℃	ASTM D732	MPa	-
Rockwell Hardness	23℃	ISO 2039-2	R Scale	-
Rockwell Hardness	80℃	ISO 2039-2	R Scale	-
Taper Abrasion		ISO 9352	mg/1000times	-
Charpy Impact Strength (V-notched)	-40℃	ISO 179	kJ/m ²	-
Charpy Impact Strength (V-notched)	23℃	ISO 179	kJ/m ²	23.9
Charpy Impact Strength (Unnotched)	-40℃	ISO 179	kJ/m ²	-
Charpy Impact Strength (Unnotched)	23℃	ISO 179	kJ/m ²	-
Heat property				
Melting Point		DSC Method	℃	216
Specific Heat		-	J/g · ℃	1.5
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	℃	-
Flammability		UL94	rank/thickness mmt	HB
Electrical property				
Volume Resistivity		IEC 60093	Ω · m	10 ¹⁰ ~10 ¹¹
Dielectric Strength		IEC 60243-1	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)	80×80×3mmt	Toray Method	%	0.3~0.5
Mold shrinkage(Transverse Direction)	80×80×3mmt	Toray Method	%	0.5~0.7

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

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