

Property	Test Condition	Test Method ISO	Units	Recycling
				Recycling20%, GF33%
				EA1R21G33
				>PA6-GF33<
				Dry
Physical property				
Water Absorption	24hrs. in 23℃ water	ISO 62	%	1
Water Absorption	23℃ in water	ISO 62	%	-
Density	23℃	ISO 1183	kg/m ³	1380
Mechanical property				
Tensile strength	-40℃	ISO 527-1,2	MPa	-
Tensile strength	23℃	ISO 527-1,2	MPa	192
Tensile strength	80℃	ISO 527-1,2	MPa	-
Elongation at Break	-40℃	ISO 527-1,2	%	-
Elongation at Break	23℃	ISO 527-1,2	%	3.8
Elongation at Break	80℃	ISO 527-1,2	%	-
Flexural Strength	-40℃	ISO 178	MPa	-
Flexural Strength	23℃	ISO 178	MPa	266
Flexural Strength	80℃	ISO 178	MPa	-
Flexural Modulus	-40℃	ISO 178	GPa	-
Flexural Modulus	23℃	ISO 178	GPa	8.9
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	18.6
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	℃	225
Specific Heat		-	J/g · ℃	1.6
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	℃	224
Heat Deflection Temp High Load	1.80MPa	ISO 75-1,2	℃	215
Flammability		UL94	rank/thickness m mt	HB
Electrical property				
Volume Resistivity		IEC 60093	Ω · m	-
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	-	-
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

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

