

Property	Test Condition	Test Method ISO	Units	Recycling	
				Recycling20%, GF33%	
				EA1R21G33	
				>PA6-GF33<	
				Dry	
Physical property					
Water Absorption	24hrs. in 23℃ water	ISO62	%	1	
Water Absorption	23℃ in water	ISO62	%	-	
Density	23℃	ISO1183	kg/m ³	1380	
Mechanical property					
Tensile strength	-40℃	ISO527-1,2	MPa	-	
Tensile strength	23℃	ISO527-1,2	MPa	192	
Tensile strength	80℃	ISO527-1,2	MPa	-	
Elongation at Break	-40℃	ISO527-1,2	%	-	
Elongation at Break	23℃	ISO527-1,2	%	3.8	
Elongation at Break	80℃	ISO527-1,2	%	-	
Flexural Strength	-40℃	ISO178	MPa	-	
Flexural Strength	23℃	ISO178	MPa	266	
Flexural Strength	80℃	ISO178	MPa	-	
Flexural Modulus	-40℃	ISO178	GPa	-	
Flexural Modulus	23℃	ISO178	GPa	8.9	
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	18.6	
Charpy Impact Strength（Unnotched）	-40℃	ISO179	kJ/m ²	-	
Charpy Impact Strength（Unnotched）	23℃	ISO179	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		ISO11359-2	×10 ⁻⁵ /℃	2~3	
Heat Deflection Temp Low Load	0.45MPa	ISO75-1,2	℃	224	
Heat Deflection Temp High Load	1.80MPa	ISO75-1,2	℃	215	
Flammability		UL94	rank/thickness m mt	HB	
Electrical property					
Volume Resistivity		IEC60093	Ω · m	-	
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	-	-	
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.

