

Property	Test Condition	Test Method ISO	Units	Nylon66/Flame Retardant		Nylon66/Flame Retardant		Nylon66/Flame Retardant		Nylon66/Flame Retardant		Nylon66/Flame Retardant		Nylon66/Flame Retardant			
				Unreinforced, Non-halogen		Unreinforced, Halogen		GF15%, Halogen		GF20%, Halogen		GF30%, Halogen		GF15%, Non-halogen, Toughness		GF30%, Non-halogen, Toughness	
				CM3004-V0		CM3304-V0		CM3004G-15		CM3004G-20		CM3004G-30		HF3064G15		HF3064G30	
				>PA66-FR<		>PA66-FR<		>PA66-GF15FR<		>PA66-GF20FR<		>PA66-GF30FR<		>PA66-GF15FR<		>PA66-GF30FR<	
				Dry	2.2%water	Dry	1.8%water	Dry	1.3%water	Dry	1.3%water	Dry	1.0%water	Dry	Dry		
Physical property																	
Water Absorption	24hrs. in 23°C water	ISO62	%	1.1	-	1.2	-	0.4	-	0.4	-	0.6	-	0.4	0.7		
Water Absorption	23°C in water	ISO62	%	7.5	-	8	-	5	-	4.5	-	4	-	5	4		
Density	23°C	ISO1183	kg/m ³	1190	-	1310	-	1470	-	1500	-	1590	-	1410	1530		
Mechanical property																	
Tensile strength	-40°C	ISO527-1,2	MPa	-	-	-	-	145	-	150	-	190	-	-	-		
Tensile strength	23°C	ISO527-1,2	MPa	85	65	75	55	125	95	130	105	165	135	105	154		
Tensile strength	80°C	ISO527-1,2	MPa	45	-	-	-	60	-	85	-	110	-	-	-		
Elongation at Break	-40°C	ISO527-1,2	%	-	-	-	-	2.5	-	2.5	-	2.5	-	-	-		
Elongation at Break	23°C	ISO527-1,2	%	7.5	7.5	3.5	6	3	3	3	3	3	3	2.7	2.5		
Elongation at Break	80°C	ISO527-1,2	%	-	-	-	-	4.5	-	4.5	-	4.5	-	-	-		
Tensile Modulus	23°C	ISO527-1,2	GPa	-	-	-	-	-	-	-	-	-	-	-	-		
Flexural Strength	-40°C	ISO178	MPa	170	-	-	-	200	-	225	-	275	-	-	-		
Flexural Strength	23°C	ISO178	MPa	125	70	110	60	190	140	210	155	250	200	165	234		
Flexural Strength	80°C	ISO178	MPa	65	-	-	-	120	-	135	-	150	-	-	-		
Flexural Modulus	-40°C	ISO178	GPa	-	-	-	-	6.2	-	7.7	-	10.2	-	-	-		
Flexural Modulus	23°C	ISO178	GPa	3.5	1.5	2.9	1.3	5.7	3.5	7	4.2	9.3	6.5	6.9	10.4		
Flexural Modulus	80°C	ISO178	GPa	1.2	-	-	-	2.8	-	4.2	-	5.5	-	-	-		
Rockwell Hardness	23°C	ISO2039-2	R Scale	120	-	120	-	120	-	120	-	121	-	-	-		
Taper Abrasion		ISO9352	mg/1000times	9~10	-	-	-	12	-	25	-	26	-	-	-		
Charpy Impact Strength (V-notch)	-40°C	ISO179	kJ/m ²	4.5	-	-	-	4.5	-	7	-	7	-	-	-		
Charpy Impact Strength (V-notch)	23°C	ISO179	kJ/m ²	4.5	13	4	9.5	6	9.5	9.5	12	9.5	14	6	10.7		
Charpy Impact Strength (Unnotched)	-40°C	ISO179	kJ/m ²	135	破断せず	-	-	-	-	-	-	-	-	-	-		
Charpy Impact Strength (Unnotched)	23°C	ISO179	kJ/m ²	-	-	-	-	40	48	50	60	65	70	-	-		
Heat property																	
Melting Point		DSC Method	°C	265	-	244	-	265	-	265	-	265	-	265	265		
Coef of Linear Thermal Expansion		ISO11359-2	×10 ⁻⁵ /°C	-	-	10	-	5	-	4	-	2	-	5	2		
Heat Deflection Temp Low Load	0.45MPa	ISO75-1,2	°C	244	-	-	-	-	-	-	-	-	-	243	251		
Heat Deflection Temp High Load	1.80MPa	ISO75-1,2	°C	-	-	-	-	-	-	-	-	-	-	-	-		
Heat Deflection Temp High Load	1.82MPa	ISO75-1,2	°C	-	-	-	-	244	-	245	-	251	-	-	-		
Flammability		UL94	rank/thickness mm	V-0(1/64")	V-0(1/64")	V-0(1/32")	V-0(1/32")	V-0(1/64")	V-0(1/64")	V-0(1/64")	V-0(1/64")	V-0(1/64")	V-0(1/64")	V-0(1/32")	V-0(1/32")		
Electrical property																	
Volume Resistivity		IEC60093	Ω·m	10 ¹³	-	10 ¹³	-	10 ¹³	10 ¹¹	10 ¹³	10 ¹¹	10 ¹³	10 ¹¹	10 ¹³	10 ¹³		
Dielectric Strength		IEC60243-1	MV/m	28	-	25	-	31	26	31	26	38	33	-	-		
Dielectric Constant	23°C, 60%RH, 50 Hz	IEC 60250	-	5.2	-	-	-	-	-	-	-	-	-	-	-		
Dielectric Constant	23°C, 60%RH, 1K Hz	IEC 60250	-	-	-	-	-	4	-	4	-	4	-	-	-		
Dielectric Constant	23°C, 60%RH, 1 MHz	IEC 60250	-	-	-	-	-	0.01	-	0.01	-	0.01	-	-	-		
Dissipation Factor	23°C, 60%RH, 50 Hz	IEC 60250	-	0.07	-	-	-	-	-	-	-	-	-	-	-		
IEC Tracking Index(CTI)		UL-746B	-	600	-	-	-	210	-	210	-	200	-	-	-		
Arc resistance	Tungsten Electrode	UL-746A	sec.	127	-	-	-	70	-	70	-	70	-	-	-		
Molding property																	
Mold shrinkage(Machine Direction)	80×80×3mm	Toray Method	%	1.0~1.6	1.0~1.6	1.0~1.4	1.0~1.4	0.4~0.6	-	0.4~0.6	-	0.2~0.5	-	0.3~0.5	0.1~0.3		
Mold shrinkage(Transverse Direction)	80×80×3mm	Toray Method	%	-	-	-	-	0.8~1.2	-	0.8~1.2	-	0.6~0.9	-	1.1~1.3	0.9~1.1		
Mold shrinkage(Machine Direction)	80×80×1mm	Toray Method	%	0.6~0.9	0.6~0.9	0.6~0.8	0.6~0.8	-	-	-	-	-	-	-	-		

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