

Property	Test Method		Condition	Unit	High Impact Grade							
	ISO No.	JIS No.			GR04940	GR04970	GR00100	GR01240	GR01270	GR-H24	GR-H42	GR-H60
					General	General	General	Heat Resistant	Heat Resistant	High-Flowability	High-Flowability	High-Flowability
Optical												
Light transmission	ISO 13468-1	JIS K7361-1	3mm	%	92 \leq	91 \leq	91 \leq	92 \leq	91 \leq	92 \leq	91 \leq	91 \leq
Haze	ISO 14782	JIS K7136	3mm	%	\leq 1.0	\leq 1.5	\leq 1.8	\leq 1.0	\leq 1.5	\leq 1.0	\leq 1.4	\leq 1.5
Refractive Index Nd	ISO 489	JIS K7142	nd	—	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Mechanical												
Tensile modulus	ISO 527-2	JIS K7161	1A/1	MPa	2500	2100	1700	2500	2100	2400	2100	1600
Tensile strength at break	ISO 527-2	JIS K7161	1A/5	MPa	59	48	40	62	50	55	45	38
Tensile strain at break	ISO 527-2	JIS K7161	1A/5	%	17	50	60	15	40	22	50	61
Flexural modulus	ISO 178	JIS K7171	—	MPa	2600	2200	1800	2600	2200	2500	2200	1700
Flexural stress at break	ISO 178	JIS K7171	—	MPa	95	78	62	96	79	88	76	61
Charpy impact strength/unnotched	ISO 179	JIS K7111	1eU	KJ/m ²	56	71	91	50	73	56	71	101
	ISO 179	JIS K7111	1eA	KJ/m ²	3	4.5	6.5	3	4.5	2	4	5
Rockwell hardness	ISO 2039-2	JIS K7202	M scale	—	84	68	44	85	68	81	63	39
Thermal												
Deflection temperature under load /annealed	ISO 75-2	JIS K7191	1.80MPa	°C	91	86	83	95	90	86	84	77
Vicat softening point	ISO 306	JIS K7206	B50	°C	97	93	90	102	97	94	92	88
MFR	ISO 1133	JIS K7210	230°C 37.3N	g/10min	5	3	1.5	1.8	1.7	10	6	3
Specific heat	—	JIS K7123	—	J(g·°C)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Coefficient of linear expansion	—	JIS K7197	—	1/°C	9 \times 10 ⁻⁵	10 \times 10 ⁻⁵	11 \times 10 ⁻⁵	9 \times 10 ⁻⁵	10 \times 10 ⁻⁵	9 \times 10 ⁻⁵	10 \times 10 ⁻⁵	11 \times 10 ⁻⁵
Thermal conductivity	—	JIS KA1412	—	W/(m·°C)	2	2	2	2	2	2	2	2
Electrical												
Surface resistivity	—	JIS K6911	—	Ω	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
Volume resistivity	—	JIS K6911	—	Ω m	>10 ¹³	>10 ¹³	>10 ¹³	>10 ¹³	>10 ¹³	>10 ¹³	>10 ¹³	>10 ¹³
Dielectric breakdown strength	—	JIS K6911	4kV/sec	MV/m	20	20	20	20	20	20	20	20
Dielectric constant	—	JIS K6911	60Hz	—	4	4	4	4	4	4	4	4
Other												
Density	ISO 1183	JIS K7112	—	g/cm ³	1.18	1.17	1.16	1.18	1.17	1.18	1.17	1.16
Water absorption at 23°C	ISO 62,method 1	—	24 hr	%	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Molding shrinkage	ISO 294-4	JIS K7152-4	—	%	0.4~0.8	0.4~0.8	0.4~0.8	0.4~0.8	0.4~0.8	0.4~0.8	0.4~0.8	0.4~0.8
Flammability	UL94	—	—	class	HB	HB	HB	HB	HB	HB	HB	HB
Burning velocity	—	JIS K6911	—	cm/min	3	3	3	3	3	3	3	3

*All values in the above table are typical values of natural color product.