

# Standard grade properties

001 contains Ultra Violet Ray absorber, 000 does not contain

Standard grade									
Item	Test method	Test condition	Unit	VH	MD	MF	V		
				001/000	001	001	001	001	001
Physical properties	Specific gravity	JIS K7112 ISO 1183		g/cm <sup>3</sup>	1.19	1.19	1.19	1.19	
	Total light transmittance	ISO 13468	3mm	%	92.5	93	93	93	
	Haze	ISO 14782	3mm	%	0.3	0.3	0.3	0.3	
	Refractive index	ASTM D542	nd	-	1.49	1.49	1.49	1.49	
	water adsorption	ISO 62	24hr	%	0.3	0.3	0.3	0.3	
Thermal properties	Specific heat	JIS K7123		J/(gC)	1.5	1.5	1.5	1.5	
	Coefficient of linear expansion	ASTM D696		1/C	6X10 <sup>-5</sup>	6X10 <sup>-5</sup>	6X10 <sup>-5</sup>	6X10 <sup>-5</sup>	
	Coefficient of thermal conductivity	ASTM C177		W/(mC)	0.2	0.2	0.2	0.2	
	Deflection temperature under load	ISO 75	1.80MPa	C	100	87	84	93	
	Vicat softening temperature	ISO 306	50N	C	107	94	89	100	
	Melt flow rate	ISO 1133	230C,37.3N	g/10min	2.0	6.0	14.0	2.3	
	Spiral flow	MRC method	230C	mm	130	190	250	150	
	(Thickness 2mm)		250C	mm	220	290	370	230	
Mechanical properties	Tensile strength	ISO 527	1A/5	MPa	77	71	66	75	
	Tensile elongation		1A/5	%	6	6	4	7	
	Modulus of Elasticity		1A/1	GPa	3.3	3.3	3.2	3.3	
	Flexural strength	ISO 178		MPa	140	130	120	135	
	Flexural modulus			GPa	3.3	3.3	3.2	3.3	
	Izod impact strength	ISO180	1A	kJ/m <sup>2</sup>	2.1	2.1	2.1	2.1	
	Charpy impact strength	ISO 179	1eU	kJ/m <sup>2</sup>	20	19	18	20	
			1eA	kJ/m <sup>2</sup>	1.4	1.4	1.3	1.4	
			V notched						
	Rockwell hardness	ISO 2039	M scale	-	101	94	92	98	
Electrical properties	Surface resistivity	JIS K6911		$\Omega$	>10 <sup>16</sup>	>10 <sup>16</sup>	>10 <sup>16</sup>	>10 <sup>16</sup>	
	Volume resistivity	JIS K6911		$\Omega$ m	>10 <sup>13</sup>	>10 <sup>13</sup>	>10 <sup>13</sup>	>10 <sup>13</sup>	
	Dielectric strength	JIS K6911	4kV/sec	MV/m	20	20	20	20	
	Dielectric constant	JIS K6911	60Hz	-	3.7	3.7	3.7	3.7	
	Power factor	JIS K6911	60Hz	-	0.05	0.05	0.05	0.05	
	Arc resistance	JIS K6911		-	no track	no track	no track	no track	
Mold shrinkage	MRC method		%	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6		