



Idemitsu Petrochemical Co. Ltd

Idemitsu Polycarbonate

PROPERTIES	TEST METHOD	UNIT	TYPICAL VALUES				
			1700	1900	2200	2600	IRY 2200
DENSITY	ISO 1183	kg/m ³	1.2	1.2	1.2	1.2	1.2
MELT FLOW INDEX	ISO 1133	g/10 min	27	19	12	6	12
WATER ABSORPTION	ISO 62	%	0.23	0.23	0.23	0.23	0.23
TENSILE STRESS AT YIELD		MPa	65	65	65	65	65
TENSILE STRESS AT BREAK		MPa	65	65	65	65	65
NOMINAL TENSILE STRAIN AT BREAK	ISO 527	%	95	95	95	95	95
MODULUS OF ELASTICITY IN TENSION		MPa	2000	2000	2000	2000	2000
FLEXURAL STRENGTH	ISO 178	MPa	90	90	90	90	90
MODULUS OF ELASTICITY IN LEXURE	ISO 178	MPa	2300	2300	2300	2300	2300
CHARPY IMPACT STRENGTH	ISO 179-1 EA	kJ/m ²	40	70	80	90	80
ROCKWELL HARDNESS	ISO 2039	R/M scale	120 / 50	120 / 50	120 / 50	120 / 50	120 / 50
TABER ABRASION	ASTM 1044	mg	12	12	12	12	12
TEMPERATURE OF DEFLECTION	ISO 75	°C	125	125	125	130	125
VICAT SOFTENING POINT	ISO 306	°C	145	145	145	150	145
MOULD SHRINKAGE	ASTM D 955	%	0.5 - 0.7	0.5 - 0.7	0.5 - 0.7	0.5 - 0.7	0.5 - 0.7
LINEAR EXPANSION FACTOR	ASTM D 696	x10 ⁻⁵ cm/cm°C	6.5	6.5	6.5	6.5	6.5
ELECTRIC STRENGTH (1.6MM)	IEC 60243-1	MV / m	30	30	30	30	30
VOLUME RESISTIVITY	IEC 60093	W x m	>1E16	>1E16	>1E16	>1E16	>1E16
RELATIVE PERMITTIVITY		100 Hz / 106 Hz	2.91/2.85	2.91/2.85	2.91/2.85	2.91/2.85	2.91/2.85
DISSIPATION FACTOR	IEC 60250	60Hz / 106 Hz	6.6X10 ⁻⁴ / 9.2X10 ⁻³	6.6 x 10 ⁻⁴ / 9.2 x 10 ⁻³	6.6 x 10 ⁻⁴ / 9.2 x 10 ⁻³	6.6 x 10 ⁻⁴ / 9.2 x 10 ⁻³	6.6 x 10 ⁻⁴ / 9.2 x 10 ⁻³
ARC RESISTANCE	ASTM D 495	sec	110	110	110	110	110
REFRACTIVE INDEX			1,586	1,586	1,586	1,586	1,586
TOTAL LUMINOUS TRANSMITTANCE	ISO 13468	%	85 - 89	85 - 89	85 - 89	85 - 89	85 - 89
FLAMMABILITY	UL94 File E48268(m)	0.36mm~1.9mm	V-2	V-2	V-2	V-2	V-0
		>1.9mm	HB	HB	HB	HB	V-0
HWI-CLASS AT 1.47mm			3	3	3	3	
FLAMMABILITY - OXYGEN INDEX	ASTM D 2863	%	26	26	26	26	28
GLOW WIRE TEST AT 3.0mm	IEC 695-2-1	°C	850	850	850	850	960