

Typical property table

**Polycarbonate resin TARFLON™**

**IR1700**



Formosa Idemitsu Petrochemical Corporation (FIPC)

General PC with iced-clear color and good mold release property for injection molding or extrusion. IR grade is listed in NSF/ANSI standard 51 Food Equipment Materials.

Property	Method	Units	IR1700
ISO identification mark	-	-	>PC<
<b>Physical</b>			
MFR	ISO 1133	g/10min	26
Density	ISO 1183	g/cm <sup>3</sup>	1.2
Water absorption (50%RH 24hr)	ISO 62	%	0.23
<b>Mechanical</b>			
Tensile stress at Yield	ISO 527-1,2	MPa	65
Tensile strain at break	ISO 527-1,2	%	95
Flexural strength	ISO 178	MPa	90
Flexural modulus	ISO 178	GPa	2.3
Charpy impact strength (Notched)	ISO 179-1	kJ/m <sup>2</sup>	40
Rockwell hardness	ISO 2039-2	R/M scale	R120/M50
<b>Thermal</b>			
Heat deflection temperature (1.8 MPa)	ISO 75-1,2	°C	125
Linear thermal expansion coefficient	ISO 11359-2	x 10 <sup>-5</sup> /°C	6.5
Mold shrinkage	ASTM D955	%	0.5 ~ 0.7
<b>Optical</b>			
Total luminous transmittance	ISO 13468-1	%	85 ~ 90
<b>Electrical</b>			
Dielectric strength	IEC 60243-1	kV/mm	30
Volume resistivity	ASTM D257	Ω · cm	> 10 <sup>16</sup>
Dielectric Constant (1 MHz)	IEC 60250	-	2.85
Dielectric dissipation factor (1 MHz)	IEC 60250	-	0.0092
<b>UL rating</b>			
Flammability	UL94	(Class)	V-2 (0.36 ~ 2.4 mm) HB (2.5 ~ 6.0 mm)
CTI	UL746A	(PLC level)	2
RTI (Elec)	UL746B	°C	130
RTI (Imp)	UL746B	°C	125
RTI (Str)	UL746B	°C	130
UV, water exposure or immersion	UL746C	-	f2
<b>Standard molding parameters</b>			
Pre-drying condition	-	-	120 °C, 5~8hours
Cylinder temperature	-	-	260 ~ 300 °C (Max.320 °C)
Mold temperature	-	-	80 ~ 120 °C

UL file No. QMFZ2.E238753

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