



# QINGDAO GON PLASTICSCO, .LTD

## Polycarbonate JY-PC-907UR Technical Data

### Product Information

Manufacturer	Puyang Shengtong Juyuan New Material Co., Ltd.
Other Certificates	MSDS
Material	PC
Color	Transparent
Material Shape	Granular
Processing Methods	Injection, Extrusion, Blow molding
Viscosity	High viscosity
Material Properties	Anti-UV Grade
Flammability	HB V-2
Basic date	UL-UL-746C F1
Purpose	General
Material properties	UV stabilized; easy release; general purpose
Additive	Release agent, Anti-UV agent

Physical Properties	Test Conditions	Test Methods	Indicative Values
Density		ISO 1183	1200 kg/m <sup>3</sup>
Mold shrinkage	parallel		0.70%
	normal		0.80%
Melt volume-flow rate	300°C, 1.2kg	ISO 1133	6.50 cm <sup>3</sup> /10min
Melt mass-flow rate	300°C, 1.2kg	ISO 1133	7.0 g/10min
Water absorption	23°C	ISO 62	0.30%

Mechanical properties	Test Conditions	Test Methods	Indicative Values
Tensile strength	50mm/min	ISO 527-1-2	70.8MPa
Yield stress	50mm/min	ISO 527-1-2	65.5MPa
Tensile modulus	50mm/min	ISO 527-1-2	2300MPa
Strain at break	50mm/min	ISO 527-1-2	120.00%
Flexural strength	2mm/min	ISO 178	95MPa
Flexural modulus	2mm/min	ISO 178	2350MPa
Izod notched impact strength	23°C	ISO 180A	72.0 KJ/m <sup>2</sup>

Flammability properties	Test Conditions	Test Methods	Indicative Values
Burning behavior	0.75mm	UL 94	V-2
Burning behavior	1.5-2.4mm	UL 94	V-2
Burning behavior	2.5mm	UL 94	HB
Burning behavior	3.0mm	UL 94	HB
Burning behavior	6.0mm	UL 94	HB

GWIT	1.5mm	IEC 60692	875°C
GWIT	3.0mm	IEC 60692	900°C
<b>Optical properties</b>	<b>Test Conditions</b>	<b>Test Methods</b>	<b>Indicative Values</b>
Luminous			
1000um		ISO 13468-2	89.00%
2000um		ISO 13468-2	89.00%
<b>Thermal properties</b>	<b>Test Conditions</b>	<b>Test Methods</b>	<b>Indicative Values</b>
Glass transition temperature	10°C/min	ISO 11357-2	145°C
Temperature of deflection under load	0.45MPa	ISO 75-2/B	136°C
Temperature of deflection under load	1.8 MPa	ISO 75-2/A	124°C
Vicat softening temperature		ISO 306	143°C
Resistance to heat (ball pressure test)		IEC 60692	135°C
Flash ignition temperature		ASTM D1929	480°C
Self ignition temperature		ASTM D1929	550°C
<b>Electrical properties</b>	<b>Test Conditions</b>	<b>Test Methods</b>	<b>Indicative Values</b>
Volume resistivity		IEC60093	1E+14 Ω.M
Surface resistivity		IEC60093	1E+16 Ω
Electrical strength	1.0mm	IEC60243	34KV/mm
Relative permittivity	100HZ	IEC60250	3.1
Relative permittivity	1MHZ	IEC60250	3
Dissipation facto	100HZ	IEC60250	0.0005
Dissipation facto	1MHZ	IEC60250	0.009
<b>Injection molding</b>		<b>Values</b>	<b>Unit</b>
Drying Temperature		120	°C
Drying Time		2~4	hr
Moisture Content max.		≤0.02	%
Barrel Temperatures - Rear		260~270	°C
Barrel Temperatures - Middle		280~290	°C
Barrel Temperatures - Front		290~300	°C
Barrel Temperatures - Nozzle		300~310	°C
Melt temperatures		290~330	°C
Standard Melt temperature		310	°C
Mold Temperatures		80~120	°C
Peripheral Screw Speed		0.05~0.2	m/s
Shot-to-Cylinder Size		30~70	%
Back Pressure		50~150	bar
Hold Pressure		50~70	%
Vent Depth		0.025~0.075	mm