

## Wanshijie PC Film

Category: Polymer, Film, Thermoplastic, Polycarbonate (PC)

## **Material Notes:**

PC is a kind of shapeless, odorless, non-toxic, high transparency, colorless or light yellow thermoplastic engineering plastic with excellent physical and mechanical properties, especially excellent impact resistance, high tension strength, high bending strength, high compression strength, high creep resistance and stable clemencies It also has good heat resistance and low temperature resistance, Within a wide temperature range it has stable mechanical properties, dimensional stabilities, electrical properties and flame redundancy. It can be used at -60~120°C for a long time without an obvious melting paint and it becomes to be the melting state at 220-230°C, the rightist of molecular chain is high, so the viscosity of resin melt is high It has low water absorption and shrinkage, and high precision dimensions and low permeability. It is stable when subject to light but can not withstand UV. It is resistant to oil and acid, but not resistant to strong alkali, oxidizing acid, ketene and amine. It can be dissolved in chlorinated hydrocarbon and aromatic solvent. It can be hydrolyzed and cracked when put in the water for a long time. The disadvantages of it are poor fatigue stress, poor solvent resistance and poor wearing resistance.MAIN APPLICATIONS: automobile industry, electronic and electrical appliances industries, LCD and mechanical parts, plating lens, various labels, prints, film switches, chrome plates, arc-protection helmets/glass assembly industries, industrial machine accessory, discs, packing, computer and similiar office equipments, medical treatment and health care, film, leaisure and protection equipments.

Order this product through the following link: http://www.lookpolymers.com/polymer\_Wanshijie-PC-Film.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792
Water Absorption	<= 0.40 %	<= 0.40 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	>= 55.0 MPa	>= 7980 psi	ASTM D882
Elongation at Break	>= 90 %	>= 90 %	ASTM D882
Tensile Modulus	2.00 GPa	290 ksi	ASTM D790

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 μm/m-°C	38.9 μin/in-°F	ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	0.190 W/m-K	1.32 BTU-in/hr-ft <sup>2</sup> -°F	ASTM D117
Vicat Softening Point	135 °C	275 °F	ASTM D1525
Brittleness Temperature	-130 °C	-202 °F	ASTM D746
	V-2	V-2	
Flammability, UL94			



Thermal Properties	@Thickness 0.250 mm Metric	@Thickness 0.00984 in English	Comments
Shrinkage	<= 0.30 %	<= 0.30 %	ASTM D1204
	@Temperature 135 °C	@Temperature 275 °F	7,01,111,201

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+16 ohm-cm	>= 1.00e+16 ohm-cm	ASTM D495
Surface Resistivity per Square	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ASTM D257
Dielectric Constant	2.95	2.95	ASTM D150
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	2.98	2.98	ASTM D150
	@Frequency 60 Hz	@Frequency 60 Hz	
Dielectric Strength	30.0 kV/mm	762 kV/in	Short Time; ASTM D149
Arc Resistance	>= 100 sec	>= 100 sec	ASTM D495

## **Contact Songhan Plastic Technology Co.,Ltd.**

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