

# TYPICAL PROPERTIES OF ELECTRONIC POLYCARBONATE FILM

## Classification

- Transparent Series
- Frosted Series
- Color Series

## Features

### Transparent Series:

- High-definition transparency
- Good compression resistance
- High dimensional stability
- Excellent printing performance
- Easy to process and shape

### Frosted Series:

- Low gloss
- Excellent formability and printability
- Various surface textures
- Different light transmittances
- Different haze levels

### Color Series:

- Various colors
- Good mechanical properties
- Dimensional stability
- Excellent formability and printability

## Application

It can be widely used in electronic and electrical products, automotive parts, protective products, etc. Such as membrane switches, panels, windows, nameplates, dashboards, headlights, rearview mirrors, charging stations, masks, goggles, welding helmets, sun hats, sunglasses, etc.

Type	Color	Texture	Thickness(mm)	Width(mm)
<b>Specification</b>				
Film	Natural, Customized	Polished/Polished	0.05 - 0.5	930, 1220
Sheet		Fine Velvet/Matte Velvet/Matte Bad Velvet/Matte	0.5 - 2.0	915, 1000
Tolerances	T>0.5mm±3%, 0.25<T≤0.5mm±5%, 0.1≤T≤0.25mm±10%, T<0.1mm±0.008mm			

Properties	Value	UNITS	Method
<b>PHYSICAL</b>			
Specific Gravity	≥1.2	G/cm <sup>3</sup>	ISO 1183
Haze	Transparent: <0.5	%	ASTM D1003
	Texture: >60		
	Color: -		
Light Transmission	Transparent: >89	%	ASTM D1003
	Frosted: >80		
	Color: -		
Water Absorption Equilibrium	≤0.35	%	ASTM D570
<b>MECHANICAL</b>			
Tensile Strength	TD:≥55 MD:≥60	MPa	ISO527
Tensile Modulus	≥2200	MPa	ISO527
Flexural modulus	≥90	MPa	ISO178
Elongation-at-break	≥90	%	GB/T1040.3
<b>Temperature Resistance</b>			
Vicat Softening Temperature	≥138	°C	ISO306
Thermal Expansivity	6.5*10 <sup>5</sup>	/°C	ISO11359
<b>Electrical</b>			
Permittivity	≥3.0	-	IEC60250
Voltage test	≥30	KV/mm	IEC60243(DC)
Volume Resistivity	≥10 <sup>13</sup>	Ω.cm	IEC60093
Surface Resistivity	≥10 <sup>14</sup>	Ω	IEC60093