

TYPICAL PROPERTIES OF FLAME RETARDANT POLYCARBONATE FILM

Classification

- Electronic Flame Retardant Series
- New Energy Battery Flame Retardant Series

Features

- High strength
- Good insulation
- Impact resistance
- Good flame retardancy
- High-temperature resistance
- Environmentally friendly and safe

Application

Electronic Flame Retardant Series

It can be used in various electronic and electrical products to provide insulation and electronic shielding. Such as laptops, TVs/monitors, power shielding, membrane switches, insulation gaskets, fire labels, power supplies, disk drives, etc.

New Energy Battery Flame Retardant Series

It can be applied to automotive battery cells, modules, PACKs, energy storage batteries, etc.

Type	Color	Texure	Thickness(mm)	Width(mm)
Specification				
Film	Natural, Black	Polished/Polished Matte/Polished	0.05 - 0.5	930, 1220
Sheet		Fine Velvet/ Matte Velvet /Matte Velvet/Fine velvet		
Tolerances	T>05mm±3%, 0.25<T≤0.5mm±5%, 0.1≤T≤0.25mm±10%, T<0.1mm±0.008mm			

Properties	Value	UNITS	Method
PHYSICAL			
Specific Gravity	≥1.2	G/cm ³	ISO 1183
Water Absorption Equilibrium	≤0.35	%	ASTM D570

MECHANICAL				
Tensile Strength		TD:≥55 MD:≥60	MPa	ISO527
Tensile Modulus		≥2200	MPa	ISO527
Flexural modulus		Electronic series ≥80	MPa	ISO178
		Battery series ≥90		
Elongation-at-break		Electronic series ≥80	%	GB/T1040.3
		Battery series ≥90		
Temperature Resistance				
Vicat Softening Temperature		Electronic series ≥138	°C	ISO306
		Battery series ≥140		
Thermal Expansivity		6.5*10 ⁵	/°C	ISO11359
Electrical				
Permittivity		≥3.0	-	IEC60250
Voltage test		≥30	KV/mm	IEC60243(DC)
Volume Resistivity		≥10 ¹²	Ω.cm	IEC60093
Surface Resistivity		≥10 ¹³	Ω	IEC60093
Flame Retardant Properties				
UL Flame Retardant Level	@≥10 mils	Electronic series V-0, V-2	UL94	UL BULLETIN 94
		Battery series V-0		
	@<10 mils	Electronic series VTM-0, VTM-2	UL94	UL BULLETIN 94
		Battery series VTM-0		

Note: The above data are typical values obtained under standard methods and should not be interpreted as unstable application conditions.