Polycarbonate PC films, rolls, and sheets have excellent impact resistance, high tensile strength, bending strength, and compressive strength; Low creep resistance and stable size; Good heat and low temperature resistance, stable mechanical properties, dimensional stability, electrical properties, and flame retardancy over a wide temperature range, suitable for long-term use at $-60^{\circ}120$ °C; No obvious melting point, in a molten state at 220-230 °C; Due to the high rigidity of the molecular chain, the viscosity of the resin melt is high; Low water absorption, low shrinkage, high dimensional accuracy, good dimensional stability, and low permeability of the film; It belongs to self extinguishing materials; Stable to light, but not resistant to ultraviolet light, with good weather resistance; Oil resistant, acid resistant, not resistant to strong alkalis, oxidizing acids, amines, ketones, and soluble in chlorinated hydrocarbons and aromatic solvents. Long term exposure to water can easily cause hydrolysis and cracking. The disadvantage is that due to poor fatigue strength, stress cracking is prone to occur, solvent resistance is poor, and wear resistance is poor.

Classification of polycarbonate PC films:

Black halogen-free flame retardant PC film, transparent flame retardant PC film, natural matte PC film, hardened PC film, scratch resistant PC film, printing grade PC film, optical grade PC film, and anti-static grade PC board

Polycarbonate PC film usage:

- 1. Black flame-retardant PC film: used for power system insulation, disk drive insulation, keyboard insulation, TV/monitor insulation, and computer motherboard insulation. The upper and lower covers of the new energy battery pack are insulated.
- 2. Printing grade frosted PC film is suitable for special printing, such as helmets, signs, nameplates, protective covers, etc
- 3. Anti scratch PC film usage: Window lenses for electronic products such as mobile phones, MP3, MP4, DVD, backlight, etc
- 4. Optical grade transparent PC sheet: mobile phone tempered film base plate, lens film, etc

Polycarbonate PC film thickness:

Between 0.05mm and 2.5mm, available in black, natural color, transparent, brown, etc., divided into rolls and sheets, with coil specifications of 930mmx89.3KG and sheet specifications of 930mmx1830mm; 1244mmx1830mm

The specific thickness includes: 0.05, 0.075, 0.1, 0.125, 0.175, 0.2, 0.25, 0.3, 0.375, 0.43, 0.5, 0.65, 0.76, 0.8, 1.0, 1.2, 1.5, 2.0, 2.5.

Meanwhile, 0.05, 0.075, 0.1, 0.125, 0.175, 0.2, 0.25, 0.3, 0.375, 0.43, 0.5, etc. are mainly made of coiled materials, while other thicknesses are mainly made of sheet materials