

**Technical Data: Acrylonitrile Butadiene Styrene-Polycarbonate (ABS/PC)**

**Product Description**

**ABS Define and Grades**

Acrylonitrile Butadiene Styrene-Polycarbonate (ABS-PC) is a polymer blend merging ABS's toughness and polycarbonate's heat resistance. It's famous for injection molding durable and versatile products.

ABS-PC (Acrylonitrile Butadiene Styrene-Polycarbonate) injected parts have exceptional strength, impact resistance, and heat stability. Comparing different ABS-PC (Acrylonitrile Butadiene Styrene-Polycarbonate) grades in injection molding offers distinct advantages.

These blends combine the strength and impact resistance of ABS with the heat stability of polycarbonate, resulting in durable parts suitable for automotive, electronics, and industrial applications, ensuring optimal performance and aesthetics.



**Features and Applications**

Features	Applications
Enhanced Strength	ABS-PC combines the strength of ABS with the impact resistance of polycarbonate, resulting in a durable and robust material for various applications.
Heat Resistance	The polycarbonate component provides heat stability, enabling ABS-PC to withstand elevated temperatures without deformation.
Impact Resistance	The blend's composition enhances impact resistance, making ABS-PC suitable for products exposed to mechanical stress and harsh conditions.
Versatile Applications	ABS-PC's balanced properties make it ideal for manufacturing automotive components, consumer electronics, and housings that require strength and aesthetic appeal.

**Physical and Mechanical**

Property	Density	Tensile Strength	Tensile Elongation	Flexural Modulus	Flexural Strength	Izod Impact Strength	Heat Deflection Temp.	Shrinkage	Hardness
Units	(g/cm <sup>3</sup> )	(Mpa)	(%)	(MPa)	(MPa)	(J/m)	(°C)	(%)	(Rockwell R)
Cycloy® ABS-PC	1.08	55	5	2200	75	650	95	0.5	100
Bayblend® ABS-PC	1.07	50	6	2400	70	600	92	0.6	98
Lexan® ABS-PC	1.06	52	4	2300	72	620	90	0.4	96
Luran® ABS-PC	1.05	48	5	2100	68	590	88	0.7	94

**Note**

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | [www.newayprecision.com](http://www.newayprecision.com) | Contact Neway



# ABS/PC Injection Molding

Acrylonitrile Butadiene Styrene-Polycarbonate  
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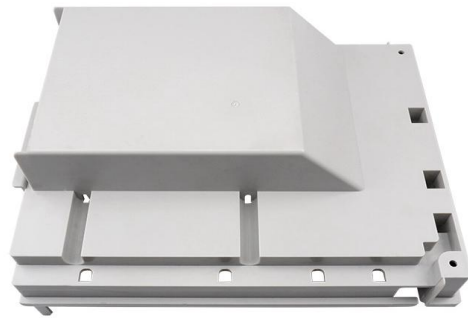
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## Benefits of Our ABS-PC

### Strength and Impact Resistance

Strength and impact resistance are prominent characteristics of injection-molded ABS-PC parts. This blend combines the toughness of ABS with the impact resistance of polycarbonate, resulting in components capable of withstanding mechanical stress and sudden impacts. The tensile strength typically ranges from 48 to 55 MPa, while the impact strength measures around 590 to 650 J/m.

Injection-molded ABS-PC parts find their niche in various industries where strength and impact resistance are pivotal. Automotive exterior parts, safety equipment components, and industrial equipment casings benefit from the blend's ability to endure mechanical stress and impact. Consumer electronics enclosures, power tool housings, and sporting goods gear also benefit, as these products often face accidental impacts during use.



### Heat Stability



The heat stability of injection-molded ABS-PC parts is a crucial attribute derived from the polycarbonate component. ABS-PC can withstand elevated temperatures without deformation, thanks to its heat deflection temperature ranging from 88°C to 95°C.

Injection-molded ABS-PC parts used in Electrical equipment panels and industrial machinery casings benefit from ABS-PC's ability to maintain form and function at elevated temperatures. Automotive components located near engines and heat sources rely on this property to ensure the parts can endure the heat generated in the engine compartment.

### UV Resistance

The UV resistance of injection-molded ABS-PC parts is a standout feature, making them suitable for outdoor applications. The blend's composition, including polycarbonate, provides excellent resistance to UV degradation, ensuring that the parts retain their appearance and performance even when exposed to sunlight for extended periods.

Injection-molded ABS-PC parts with UV resistance find essential applications in various outdoor products. Garden furniture, automotive exterior parts, outdoor signage, and recreational equipment can benefit from this property, as they are exposed to the harsh effects of UV radiation.



### Efficient Processing



Efficient processing of injection-molded ABS-PC parts stems from the blend's optimal melt flow characteristics, enabling smooth and consistent molding. This property facilitates the precise manufacturing of intricate components, reducing production time and minimizing defects while maintaining dimensional accuracy and surface finish.

Injection-molded ABS-PC parts with efficient processing are well-suited for applications that require intricate shapes and details. Consumer electronics enclosures, medical device housings, and safety equipment components benefit from streamlined manufacturing, ensuring intricate designs are accurately reproduced while maintaining the blend's mechanical and thermal properties.

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