

**Technical Data: PC (Polycarbonate)**

**Product Description**

**Define and Grades**

Polycarbonate (PC) is a high-performance thermoplastic known for its remarkable clarity, impact resistance, and heat tolerance, making it suitable for various industrial and consumer applications.

Here are some common grades of PC that Neway uses for injection molding:

- Polycarbonate (PC)
- Lexan PC
- Makrolon PC
- Calibre PC
- LEXAN 9034 PC



**Features and Applications**

Grade	Features	Applications
Polycarbonate (PC)	High impact resistance, optical clarity, excellent electrical insulation.	Safety helmets, eyeglass lenses, medical devices.
Lexan PC	Exceptional strength, UV resistance, flame retardant.	Aerospace components, automotive lighting.
Makrolon PC	High stiffness, excellent dimensional stability.	Electrical connectors, machine guards.
Calibre PC	Excellent chemical resistance, low moisture absorption.	Food containers, medical devices.
LEXAN 9034 PC	High heat resistance, optical clarity.	Signage, machine guards, face shields.

**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)
Polycarbonate (PC)	1.2	75	115	2.2	95	800	135	0.6	80
Lexan PC	1.2	76	118	2.1	96	810	136	0.5	82
Makrolon PC	1.2	74	120	2.3	94	820	138	0.4	81
Calibre PC	1.2	77	117	2.4	97	790	137	0.7	79
LEXAN 9034 PC	1.2	73	116	2	92	780	134	0.6	83

**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



# PC Injection Molding

Polycarbonate

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### Benefits of Material Grades

#### Polycarbonate (PC)

**High Impact Resistance:** PC exhibits exceptional impact resistance, making it suitable for applications where durability is crucial, such as safety goggles and bulletproof glass.

**Transparent:** The PC offers excellent optical clarity, ideal for optical lenses, LED light covers, and electronic displays.

**Heat Resistance:** PC can withstand high temperatures, making it suitable for applications with essential heat resistance, like automotive components and electrical enclosures.



#### Lexan PC



**Flame Retardant:** Lexan PC is often flame-retardant, making it suitable for applications where fire safety is a concern, such as electrical switchgear and aircraft interiors.

**UV Resistance:** Lexan PC provides UV resistance, making it a good choice for outdoor applications like greenhouse panels and signage.

**Chemical Resistance:** Lexan PC has good resistance to many chemicals, making it suitable for chemical storage tanks and laboratory equipment.

#### Makrolon PC

**Optical Clarity:** Makrolon PC offers exceptional optical clarity, making it ideal for applications like eyewear lenses, camera lenses, and LED light covers.

**Weatherability:** Makrolon PC is known for its resistance to weathering, making it suitable for outdoor applications such as skylights and signage.

**Dimensional Stability:** Makrolon PC maintains its shape and dimensions even under varying temperatures, making it suitable for precision parts in the automotive and aerospace industries.



#### Calibre PC



**Food Contact Approval:** Calibre PC is often used in food-contact applications due to its compliance with FDA regulations, making it suitable for food storage containers and kitchen utensils.

**Low Moisture Absorption:** Calibre PC has low moisture absorption, ensuring its dimensional stability in high humidity environments, suitable for electrical components and connectors.

**Chemical Resistance:** Calibre PC is resistant to a wide range of chemicals, making it a choice for chemical processing equipment and laboratory devices.

#### LEXAN 9034 PC

**High Clarity:** LEXAN 9034 PC offers high optical clarity, making it suitable for applications where transparency is critical, such as optical lenses and sight glasses.

**Electrical Insulation:** LEXAN 9034 PC has excellent electrical insulation properties, making it suitable for electrical enclosures and insulators.

**Lightweight:** The LEXAN 9034 PC is lightweight yet durable, making it a choice for automotive headlamp covers and lightweight structural components.



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