

Polycarbonate

Polycarbonate (often called “polycarb”) is a tough, transparent plastic widely used in FRC for protective and structural sheet applications.

Why FRC Teams Use Polycarbonate

Polycarbonate is used because it:

- Is very impact resistant (won’t easily shatter)
 - Is lightweight compared to metal
 - Can be cut, drilled, and bent easily with heat
 - Provides visibility through clear panels
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Common Applications

- Robot bumpers backing plates
 - Protective guards over mechanisms
 - Electrical covers and shields
 - Intake guards and anti-interference panels
 - Field-safe transparent barriers on mechanisms
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Properties to Know

- Flexible: can bend without cracking
 - Durable: absorbs impacts without breaking
 - Machinable: can be drilled and cut with proper tools
 - Sensitive to heat: can melt or deform if overheated
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Important Handling Notes

- Use sharp drill bits to prevent cracking
- Avoid high drill speed and excessive pressure
- Support the material when drilling near edges
- Do not overtighten fasteners (can cause cracking over time)

Key Idea

Polycarbonate is a strong, impact-resistant plastic that is ideal for protective and lightweight structures in FRC. Proper drilling and fastening techniques are important to prevent cracking and extend part life.

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