

“Will it hold up on a CNC machine?”

A short, honest answer about polycarbonate machine windows



SHORT ANSWER

Polycarbonate is not glass; it is a plastic with far higher impact strength than glass. But there is no single answer to “will it hold up on a CNC machine?”: the impact a window must withstand depends on the machine itself.

— The requirement belongs to the machine, not the material

- There is no single “CNC standard”. Each machine type has its own safety standard.
- These standards calculate the impact energy a window must withstand from the machine’s own values: chuck diameter, speed and jaw mass on a lathe; largest tool diameter and spindle speed on a machining centre. A projectile test defined in the standard verifies it.
- That is why a machine-independent sentence such as “this polycarbonate complies with the standard” cannot be correct.

Machine type	Safety standard
Lathe	ISO 23125
Machining centre, milling machine	ISO 16090-1
Grinding machine	ISO 16089



— What Minos supplies

- High-impact polycarbonate windows cut on our CNC router to your measurements or DXF drawing, with machined edges.
- Replacement to the size of your existing window.
- On request, the sheet supplier's material certificate (TS EN ISO 11963, the standard for polycarbonate sheet) and technical values.

— What Minos does not supply

- A protection class or projectile test report for machine windows.
- A "compliant with the standard" statement.
- The material certificate does not cover projectile testing, coolant resistance or ageing; it does not replace the impact test in the machine standard.

— Ageing: the invisible risk

- Polycarbonate gradually loses impact strength in contact with coolants and oils. The loss is often not visible.
- For lathes, the standard calls for a structure protected against ageing (multi-layer or laminated) where the window takes direct impact. A single polycarbonate sheet may not be sufficient there.
- Recommendation: inspect windows regularly; replace them if you see scratches, cracks, clouding or edge separation. Follow the replacement interval given by the machine manufacturer and record the installation date.



— Let's specify the right window together

When you ask for a quotation, please tell us:

- Machine type, make and model
- Lathe: max. chuck diameter, max. speed, top jaw mass · Machining centre: largest tool diameter, max. spindle speed
- Window size or DXF, mounting method, thickness and structure of the existing window (single sheet or laminated)
- The replacement-window specification in the machine manual (if any) and the coolant used

We follow the thickness and structure specified by the machine manufacturer.

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The safety compliance of the machine is the responsibility of the machine manufacturer and the operator. This note is general information, not legal advice.