

# Flat glass

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**Flat glass**, **sheet glass** or **plate glass** is a type of glass, initially produced in plane form, commonly used for windows, glass doors, transparent walls, and windscreens. For modern architectural and automotive applications, the flat glass is sometimes bent after production of the plane sheet. Flat glass stands in contrast to *container glass* (used for bottles, jars, cups) and *glass fibre* (used for thermal insulation, in fiberglass composites, and optical communication).

Glass for flat glass has a higher magnesium oxide and sodium oxide content than container glass, and a lower silica, calcium oxide, and aluminium oxide content.<sup>[1]</sup> (From the lower soluble oxide content comes the better chemical durability of container glass against water, which is required especially for storage of beverages and food).

Most flat glass is soda-lime glass, produced by the float glass process. Other processes for making flat glass include:

- Rolling (Rolled plate glass, Figure rolled glass)
- Overflow downdraw method
- Blown plate method
- Broad sheet method
- Window crown glass technique



Plate glass is often used in windows, such as at this cafe in Tel Aviv, Israel overlooking the Mediterranean Sea.



Fragment of a Roman window glass plate dated to 1st to 4th century A.D.

- Cylinder blown sheet method
- Fourcault process
- Machine drawn cylinder sheet method
- Plate polishing

## Quality and damage

Scratches can occur on sheet glass from accidental causes. In glass trade terminology these include "block reek" produced in polishing, "runner-cut" caused by grinding, or a "sleek" or hairline scratch, as well as "crush" or "rub" on the surface.<sup>[2]</sup>

## See also

- Architectural glass
- The term plate glass universities is used in the United Kingdom to describe a group – or generation – of universities (in an acknowledgement of the term red brick universities, used for an older generation of establishments).

## References

1. "High temperature glass melt property database for process modeling"; Eds.: Thomas P. Seward III and Terese Vascott; The American Ceramic Society, Westerville, Ohio, 2005, ISBN 1-57498-225-7
2. Ron Hanifan Concise Dictionary of Engineering: A Guide to the Language 2014 3319078399 "Scratches occur on sheet glass in all degrees from various accidental causes. Block reek is a chain-line scratch produced in polishing. A runner-cut is a curved scratch caused by grinding. A sleek is a hairline scratch. A crush or rub is a surface ..."

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