

# Simple Planning with Large Glass Panes



Design with Overlength Glass

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Overlength glass panes are now available in many standard formats, offering numerous possibilities to designers, while meeting structural requirements and challenges.

**Overlength panes are not different, just larger**

Planners have the following at their disposal:

- the tried-and-tested tools and consulting services for modern glass façades
- all traditional constructions: mullion transom façades, element façades, full-height glazing or high gloss glass façades
- the complete range of heat and sun protection coatings, safety glass and soundproof glass structures
- plus the whole spectrum of creative possibilities offered by glass finishing
- experienced partners from all areas: Specialist planners, contractors, logisticians etc.

Learn more about the [design](#) as well as about [logistics and handling](#) with Overlength glass.

## Tools and consulting services

### Software tools

Calumen III and [CalumenLive](#) are used to calculate the photometric and physical radiation data of Saint-Gobain glass panes. They simplify planning in terms of thermal insulation, solar protection, sound insulation, etc. In addition, Saint-Gobain offers planners realistic renderings using the GlassPro app or the rendering service GlassPro Live. The renderings demonstrate glazing in different lighting conditions (sunny, cloudy) along with their effect on the building interior.

### On-site consulting

A network of over 80 consultants around the world will help make your architectural project a reality. They not only help in the selection of the optimal glass and in the development of an efficient glass structure, but planners and building owners can also rely on Saint-Gobain's experienced partners for the safe and efficient transport, storage and assembly of Overlength glass. Panes of up to 18 metres in length and with weights of up to 7 tonnes can be transported to the desired location in full confidence.

## Construction

Overlength glazing can be used in all standard façade constructions. Both horizontal and vertical installations are possible.

### Aluminium or steel

For aluminium mullion transom façades, the maximum lengths, allowable loads and deflection of the transoms need to be matched to the larger weight of oversized glass panes. If necessary, the performance of the aluminium can be increased with steel reinforcements or secondary steel structures behind the glass façade.

Alternatively, planners can choose a façade system made entirely of steel. Especially when it comes to heavier glass weights, steel scores points with its slimmer profiles that lend the façade maximum elegance and visual buoyancy.

### Storey-high glass panels/element façades

The special charm of Overlength glass is that glass divisions within one floor are avoided. The glass can extend for an entire storey from floor to ceiling without interruption. Secure attachment to the base and the ceiling is of particular importance here.

### All-glass façade

Overlength glass, and the significantly reduced glass divisions, opens up completely new dimensions when it comes to elegant glass façades. The uninterrupted transparency of frameless constructions is particularly

striking.

All-glass façades without load-bearing frames and posts are made either by using point-fixed glazing or with bonded glass as a structural glazing façade. If required, the latter can be equipped with additional mechanical safety measures.

## Energy efficiency

Modern [insulating glass](#) is very efficient and glass surfaces usually offer better thermal protection than their supporting and fastening systems. In energy terms, the larger glass surfaces in the overall construction compensate for the less thermally insulated profiles and glass edges. The energy efficiency of the entire façade is thereby improved.

Planners can rely on the usual high energy and radiation characteristics of glass, depending on the coating and glass structure:

- Double insulating glass with  $U_g$  values of  $1.0 \text{ W} / (\text{m}^2\text{K})$
- Triple insulating glass with  $U_g$  values of  $0.7 \text{ W} / (\text{m}^2\text{K})$
- Noble gas filled or air-filled spaces
- Highly selective solar and thermal protection coatings
- Insulating glass with a thermally improved edge bond (warm edge)

## Specialist Planners and Contractors

To help plan using overlength glass, Saint-Gobain has a list of experienced planners companies at its disposal, which can be viewed [here](#).

## Find out more



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Logistics and Handling

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