

# Glulam panels. Stable design and simple to install.



Glulam panels are an obvious choice for facades that must retain their original appearance over long periods. The raw material used to produce glulam panels comes from strong, high quality wood from the slow-growing forests of northern Sweden. Being largely of a vertical grain and having a low moisture content upon delivery, glulam panels are highly durable and are less prone to warping, even when exposed to shifting weather conditions. More than that, many choose glulam panels because they allow the freedom to create buildings with a unique aesthetic appeal.



**Glulam panels have characteristics which make them far more durable than any other material on the market.** The panels are made by splitting a glulam beam, which means that they are mostly of a vertical grain. As a result, there is only a minimal risk that glulam panels will warp, buckle or split. The raw material for glulam panels is sourced from the slow-growing forests of Västerbotten – high quality wood that has grown strong during the region's long winters.

Glulam panels are dried to a target moisture content level of 12% prior to delivery. Because a glulam panel has such a low moisture content at the time of install, the risk that the board will later shift due to shrinkage or swelling is reduced. A low moisture content also means that glulam panels are less susceptible to changing weather conditions and that they retain their original appearance.

A glulam panel is installed in exactly the same way as any other type of panel. For the most efficient install, we recommend

panels of up to six metres in length and of 300 mm in breadth. Glulam panels can also be manufactured with end tongues and grooves, which further reduces the time needed for installation. The inherent structural stability of the panels also speeds the installation process. All standard dimensions are manufactured to fit the standard 600 mm distance between beams, which minimises waste. All glulam panels are proportioned to suit standard measurements of up to 1,800 mm. Construction using a rebated profile also makes it possible to remove and replace panels if necessary.

The wide variety of different glulam panels and the large array of different surface-treatment techniques with which they are compatible makes it easier to create a facade which meets the customer's design requirements. Whether it be a detached house, block of flats or business premises, glulam panels are a natural and durable material with which to create buildings with their own unique character.

#### **Long-lasting**

A target moisture content level of 12% reduces the risk of shrinking or swelling.

#### **Stable**

A vertical grain means the wood will not buckle or split.

#### **Fast installation**

Each glulam panel covers a large area, making installation times shorter.

#### **Minimal waste**

Glulam panels can be end-tongued and grooved and the lengths are tailored to suit the standard distance between beams.

#### **Easy maintenance**

Choosing a suitable surface treatment will mean that maintenance work is required less often.

#### **Natural material**

Wood doesn't just offer that natural feeling, it's environmentally friendly, too.

#### **Unique character**

Glulam's versatility gives architects and other designers a world of opportunity to create unique buildings.



**Stable** Because wood shifts less radially than tangentially, glulam's vertical grain means that movement in the wood is minimised, eliminating buckling and splitting.



**Simple installation** A glulam panel is installed in exactly the same way as an ordinary panel, with nails or screws. Installation can be done even more efficiently by using panels which are end-tongued and grooved.

### Horizontal glulam panels

Horizontal glulam panels are fastened to vertical nailing battens using galvanised wire nails or self-drilling stainless steel screws. The dimensions of the battens and fastenings are adjusted for the specific requirements of the building. Mitred corners are also available, for a well-rounded finish. Glulam panels are manufactured with a lip to facilitate water run-off and end tongue and grooving for efficient installation. End tongue and grooving and standard dimensions suited to the standard 600mm between beams minimise waste.



### Vertical glulam panels

Vertical glulam panels are fastened to horizontal nailing battens using galvanised wire nails or self-drilling stainless steel screws. The dimensions of the battens and fastenings are adjusted to suit the respective building. The standard sizes are made to fit the standard 600mm between beams to minimise waste. A butt-to-butt installation technique should not be used, as this prevents movement within the wood.



### Surface treatment

In order to ensure maximum durability and longevity, glulam panels should be delivered with a primer already applied, as this ensures they are treated under optimal, dry conditions immediately after the wood has been dried. A primed panel is not as susceptible to weather conditions in the interim between delivery and installation on the facade and its final painting as it would be if it were left untreated. Martinson is happy to provide customers with advice on surface treatment options.

Martinson is able to offer suggestions on suitable priming, the kind of surface treatment which should be used and how maintenance should be carried out. The choice of primer is determined by the kind of finish the customer hopes to achieve and as such, it is important to choose correctly from the outset. Together with the customer, Martinson puts together a system detailing how each step in the process should be carried out in order to achieve a satisfying result that will last.





### Handling and maintenance

A glulam panel which is handled correctly from the time of its delivery to the time it is installed will incur low maintenance costs throughout its lifetime. Panels are delivered packaged in weatherproof material and for best results, the packaging should not be broken until immediately prior to installation. If installation is to take place long after delivery, then glulam panels should be stored in unopened packages in an elevated position, to avoid exposure to moisture.

A glulam panel that has been treated with a suitable, protective primer is hardy and retains its original qualities over a long period of time, even under variable weather conditions. In each individual case, the length of time that a panel will maintain its surface before maintenance is required depends on the climate, the position of the facade and the kind of initial treatment that was applied. If a facade is to be installed in a place where it will be particularly exposed to wind and weather, then this should influence the choice of surface treatment.

Horizontal glulam panel, spruce	Vertical glulam panel, spruce
25 x 200 x 4,800 mm, E-profile, 14 mm grooves	25 x 200 x 4,800 mm, D-profile, 14 mm grooves
25 x 300 x 4,800 mm, E-profile, 14 mm grooves	25 x 300 x 4,800 mm, D-profile 14 mm grooves
25 x 200 x 6,000 mm, E-profile, 14 mm grooves	25 x 200 x 6,000 mm, D-profile, 14 mm grooves
25 x 300 x 6,000 mm, E-profile, 14 mm grooves	25 x 300 x 6,000 mm, D-profile, 14 mm grooves

