



Material properties

# Why your next living room design project should use aluminium windows

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June 27, 2019

The need for light in high-rise office buildings is clear, but the need for daylight in residential homes is also a requirement. I'll tell you why aluminium windows are a perfect fit for architectural living room designs.

The requirements for designing living rooms in homes both large and small, are constantly changing. In many countries including Norway, where I live and work, there are technical revisions for such designs, related to the following:

- Room orientation and location in the home
- Room height, windows, daylight and view
- Space requirements for furniture with operating area
- Passageways
- Floor plan with zones for different activities

Good room height, access to enough daylight and clear sightlines have a lot to say for well-being in the living room. These qualities, especially in small apartments, can compensate for smaller areas.

Norway's regulations on technical requirements for construction works (TEK) require that the room height in the living room should be at least 2.4 meters and that the living room should have satisfactory sightlines. Satisfactory in that you can see neighboring houses, the street, backyard or the like.

You should also be able to see this outside world when you are sitting. Which is why TEK's guide demands that at least one window in the living room must have a parapet no more than 1 meter above the floor level.

### **Flexible architectural design solutions**

The living room is often the largest room in the house. It has many different functions. And sometimes, you need to merge the kitchen and dining area with the living room. This leads to flexible design solutions, so that the living room can be furnished in different ways and maybe even changed in terms of how it is used.

Such flexibility can be facilitated in several ways, including location of the window or windows or ensuring sufficient space for passageways. Another option is to design rooms that can serve as an extension to the living room, like a recreation room.

You can also increase the height of the room. Raising floor-to-ceiling height to 2.7 meters, for example, will give your room airiness and add a lot to the feeling of space. It would also make it possible for you to insert high windows that release daylight far into the room. And this is where I start talking about aluminium.

### **Large glass surfaces with aluminium**

Aluminium windows give you the flexibility you need for your architectural designs. The metal is light, but it is strong, and there is no issue with regard to large glass surfaces. We can deliver solutions that are suitable for floor-to-ceiling room heights of 2.7 meters and which still fulfill TEK demands.

These include fixed windows as well as fixed windows in combination with windows that can be opened (atop a fixed window or parapet) or ventilation flaps (in full room height). French windows and lift-sliding doors, also in combination with an exterior glazed French balcony, are also options.

Three-layer glass windows with low Ug-values are mandatory in Norway to obtain the country's TEK demands regarding thermal performance.

### **Post-consumer aluminium in sustainable windows**

Lastly, I would like to add that some of these window solutions can be manufactured with materials that have an incredibly low carbon footprint. This is important.

The aluminium used for some of these windows contain at least 75 percent post-consumed metal – aluminium that has been used before in other products. This is a fantastic solution for architects and metal builders who are looking for building solutions that not only offer reduced energy consumption but are also manufactured with sustainable materials.

### **Interested in learning more?**

If you would like to learn more about aluminium solutions for building and construction, please contact Hydro and we will put you in contact with one of our experts.