

Aluminium Within Architecture - What Are the Benefits?



Have you ever considered what your walkway, bridge, deck, or steps are constructed from? The most common answer is, of course, aluminium and it will most likely be an aluminium extrusion section or profile. In fact, due to its versatility, aluminium is a staple material within architectural applications.

The growth of aluminium walkway systems in lots of different applications (i.e. food processing plants, petrochemical plants, theatrical studios, hospitals, shopping centres, sports arenas and power generation plant) is due to the benefits listed below:

- Lightweight
- Environmentally friendly (100% recyclable)
- Aesthetically pleasing
- Easily worked
- Maintenance free
- Non-toxic
- Non-combustible
- Corrosion-free

More and more of today's architects and civil engineering designers are specifying that materials are lightweight, strong and corrosion resistant. This will include aluminium and exclude materials such as wood and steel. Aluminium is approximately two-thirds lighter than steel and offers longer life than wood. The materials have to meet the ever-exacting environmental, manufacturing, aesthetic and reduced-maintenance challenges of the 21st century. When used for walkway applications, aluminium offers design engineers and architects the optimum in design flexibility. Aluminium can be extruded into sections that require minimum processing to finish and result in modular systems that are easy to assemble.

Aluminium Decking:

Aluminium extrusion decking or planking is an option for both commercial builders and homeowners. It is naturally waterproof, and will not warp, splinter, crack, rot, or swell like timber or composite decks. What's more, it's designed for easy installation.

Aluminium decking is a low maintenance option that can be cleaned with soap and water, without the need for constant upkeep of paint, stain or oil. The slip-resistant, durable decking surface is designed for safety and security, with a raised punched, ribbed or serrated surface texture that is long lasting. Smooth and designer surfaces are also available.

Aluminium within Modern Buildings:

Modern buildings contain aluminium in some form or other; not just in their construction but also in the furniture, utensils and appliances. Most houses are built with brick, but wander along your high street or city arcade, and you will find buildings clad in decorative aluminium, in addition to windows and doors made with aluminium extrusions or extruded aluminium profiles.

Furniture and the Environment:

In the past, wood was commonly used in furniture for instance, but sustainability issues surrounding forestry have resulted in the use of aluminium in its place, as a sensible contribution towards the conservation of the existing forests.

Weight Savings:

Architects and designers seek materials that not only have a low impact on the environment, but are also easy to manufacture, as well as being aesthetically pleasing and corrosion-resistant. Modern shop and office door frames are made from aluminium extrusions, resulting in a considerable weight saving over wood. In single storey buildings this may not add up to much, but imagine the weight saved when aluminium is used in skyscrapers!

Aluminium extrusion has the added advantage of a high strength-to-weight ratio - even higher than steel, which weighs in at more than three times heavier than aluminium.

Versatile Material:

Aluminium is a technically versatile material, allowing for a great variety of shapes and contours. For instance, using aluminium extrusions for window and door frames allows the designer to provide interlocking sections with all the necessary in-built characteristics, such as grooves and screw retainers.

Cost Savings:

The fact that features can be designed into the extrusion means that secondary process operations (such as machining) are often removed. This saves costs overall, as well as improving the functionality of the profile or section.

Aluminium is Everywhere:

As you walk around your office, home, or shop, consider where extruded aluminium profiles have been used. There might be more than you thought!

ABL Components - One-Stop Shop:

ABL Components has worked with many clients from the architectural, decking, and flooring sectors (in addition to a multitude of other industrial sectors globally), providing tailored solutions to their requirements for aluminium extrusions. ABL's ability to offer a 'one-stop shop' solution provides a unique service for our customer base, located both in the UK and around the world.

Our experience in this area, aligned with the capabilities and in-house equipment, makes ABL the ideal partner for all your needs in the architectural flooring market. There is also a good chance that we can help with any aluminium extrusion needs you may have in other industrial applications as well.

Contact ABL today to learn more about how we can assist you. Call us on 0121 789 8686, or email sales@ablcomponents.co.uk.