

Architectural aluminium cladding: sleek and safe

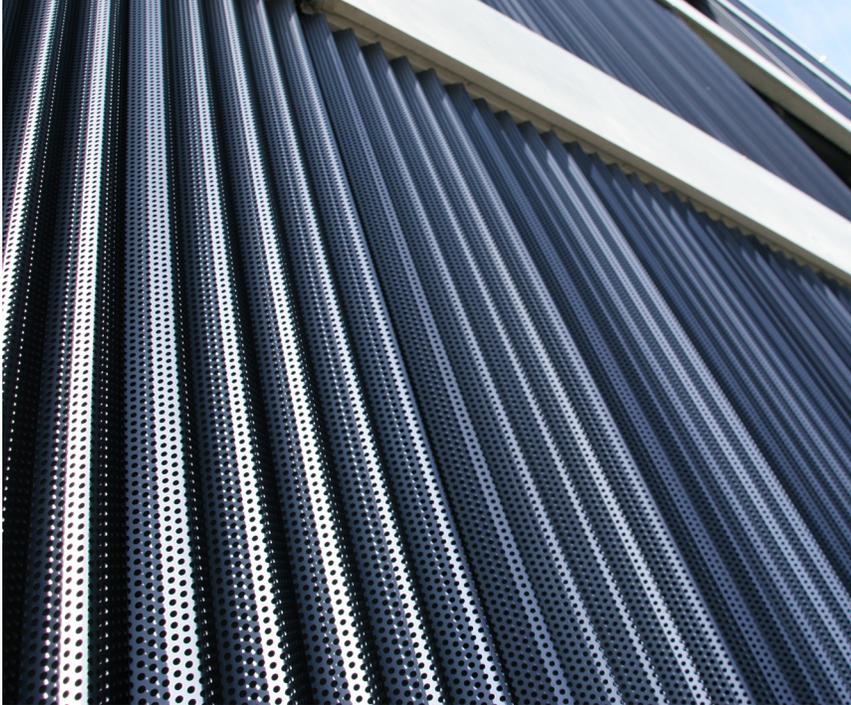


Aluminium has been a staple of innovative architecture since the 1930s, when it was first used in New York's Empire State Building. Today, aluminium has a reputation for ease of use, strength and durability; as a result, architects have brought it from inside buildings to the outside to create masterpieces of modern architecture.

In addition to its exceptional aesthetic properties, similar to other non-combustible materials such as concrete, steel and ceramics, solid aluminium does not burn. As architects, contractors, consultants and real estate owners look to meet stringent safety requirements in the construction and refurbishment of high-rise buildings for both residential and commercial uses, aluminium cladding provides an alternative that is not only safe but that is also durable and attractive.

The core

In contrast to other cladding solutions in which aluminium panels may be placed on either side of a core material, solid aluminium has an A1 European classification for fire safety, the highest classification for a noncombustible material. Aleris's 55HX®, a high-performance aluminium for anodised



cladding products, has achieved this rating. To ensure the fire safety of 55HX®, Aleris worked with Siderise, a global leader in the manufacture of fire acoustic and thermal insulation solutions. Siderise provided its cavity barriers for use in conjunction with Aleris 55HX® to simulate an actual building system. This fire test achieved the National Fire Protection Association's requirements (NFPA 285) used in the United States and in the Gulf region.

In addition to fire safety, architects use solid aluminium cladding because it offers several other benefits. It is both lightweight and strong, which allows architects to meet required performance specifications. The material's light weight makes it easier to transport and handle on site. Its optimum high strength-to-weight ratio makes it possible to design light structures while keeping the required stability.

IN ADDITION TO ITS EXCEPTIONAL AESTHETIC PROPERTIES, SOLID ALUMINIUM DOES NOT BURN.

Aluminium's flexibility and formability supports virtually unlimited design potential. It can be shaped, welded, screwed and cut into dynamic 3-D shapes. Since it maintains strong mechanical properties, it makes it an ideal material for perforating, punching and expanding.

Aluminium also provides long-lasting durability and doesn't require extensive maintenance work, even when exposed to extreme weather conditions.

As a result of this versatility, aluminium provides unlimited creative potential when compared to other metals.

When anodised (production of an oxide layer on the surface), aluminium cladding is also resistant to UV, scratching and corrosion while keeping its natural metallic look. This makes solid aluminium an ideal material for use in roofs, balconies, sun ventilation screens and interior ceilings, pillars, wall cladding and escalator casings.

Finally, this alternative material is a prime choice for clients looking to implement sustainable, green construction. Anodised aluminium cladding is recyclable, making it part of the solution for reducing greenhouse gases and energy consumption. And because it can be recycled repeatedly without losing any of its quality, it has no negative impact on air quality, soil or ground water in the areas surrounding the architectural project.

Solid aluminium offers a number of benefits, and is a safe alternative to cladding products that feature a combustible core, making it ideal for high-rise projects. •