LACOVIANA.PT

+351 258 350 520
lacoviana@lacoviana.pt

30 YEARS TAKING CARE OF YOUR ALUMINUM

TREATMENT, LACQUERING, ANODIZATION AND ALUMINUM CRAVING.

Lacoviana
TRATAMENTO E LACAGENS DE ALUMÍNIOS DE VIANA

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Aluminium, what is it?

Aluminium is the third most abundant element in the earth's crust (represents approximately 8.5%) and it is always combined with other chemical compounds. Its compounds have been used by men since the earliest times (sands rich in hydrated aluminium silicates in ceramics, aluminium salts in dyes and in medicine).

Source: www.aluminio100porcento.com

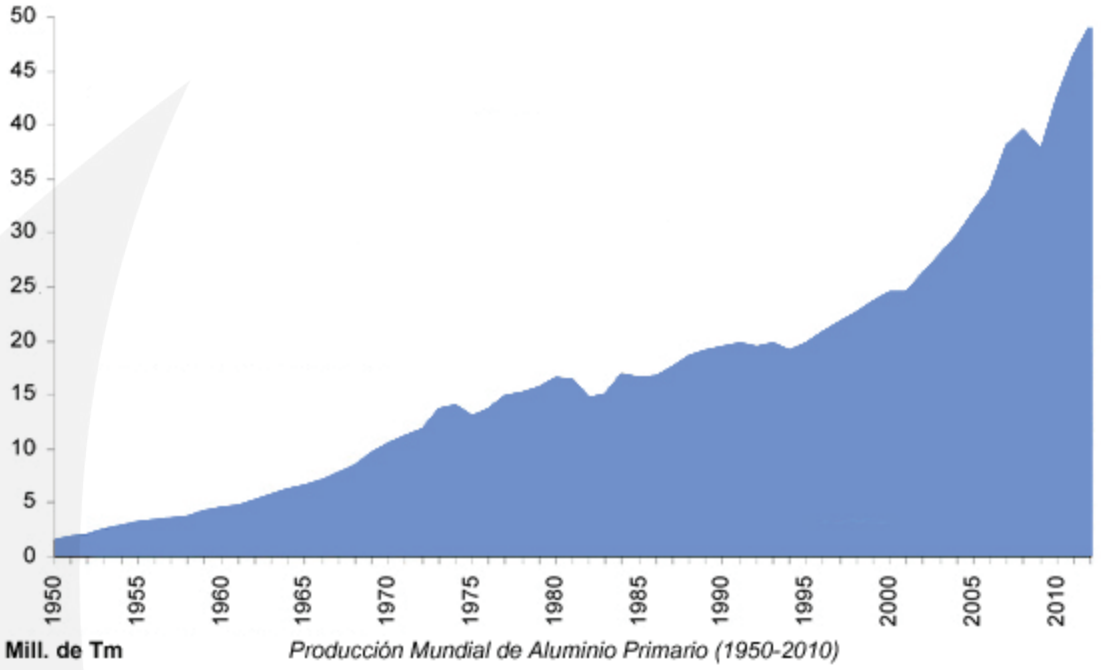
A little bit of History

In 1807, the English chemist Sir Humphrey Davy established the existence of aluminium.
In 1825, the Danish physicist H.C. Oersted produced aluminium for the first time, isolating the element through the reduction of aluminium chloride.
In 1831, P. Berthier discovered bauxite in the village of Les Baux (that originates the name).
In 1854, French Henri Saint-Claire Deville developed a process that allowed the production of aluminium in small quantities, but at a very high cost.

Finally, in 1866, the electrolysis process, currently used, was discovered almost simultaneously as Charles Martin Hall in the United States, and as Paul Louis Toussaint Héroult in France. forma quase simultânea por Charles Martin Hall, nos Estados Unidos, e por Paul Louis Toussaint Héroult, na França.
In 1888, Karl Bayer improved the process reducing costs by approximately 80% and thus converted aluminium into a commercial product. In 1807, the English chemist Sir Humphrey Davy established the existence of aluminium.

Initially, aluminium was considered a precious metal along with gold and silver, appearing on the market a large variety of luxury aluminium items. However, the unique and diverse properties of aluminium quickly converted it into a modern metal. The futuristic vision of the genius Julius Verne advocated the entrance in the " aluminium age", succeeding the iron one (it was the only metal that allowed him to reach the moon).

From the period between the world wars, aluminium began its development in an unstoppable way in all means of transportation, construction, food packaging and domestic applications.



Source: www.asoc-aluminio.es

Can you imagine our current life without aluminium?

https://www.youtube.com/watch?time_continue=87&v=UsdvKDYaP5M

Why should we choose Aluminium?

Lightweight, durable and long lasting

Aluminium is a very light metal with a specific gravity of 2.7 g/cm3, one-third the weight of steel. Its resistance can be adapted according to the intended application, modifying only the composition of its alloy.

Highly resistant to corrosion

Aluminium naturally creates an oxide coating that makes it very resistant to corrosion. The different types of surface treatment can further improve this property and is especially useful for those products that need protection and conservation.

Excellent electrical conductor

Aluminium is an excellent conductor of heat and electricity and, about its weight, is almost twice as good conductor as copper.

Good reflecting properties

Aluminium is a good reflector for both light and heat. This feature, together with its low weight, makes it the ideal material for reflectors, such as fluorescent tubes, lamps and rescue blankets.

Very flexible

Aluminium is flexible and has a low density and melting point.

Completely waterproof and odourless

The aluminium foil, even after lamination with a thickness of 0.007 mm, remains completely impermeable and does not allow the substances to lose the minimum scent and flavour. In addition, the metal is non-toxic, neither releases odour or taste.

Fully recyclable

Aluminium is 100% recyclable, without compromising its qualities. The recovery of aluminium at the end of its useful life requires little energy. The recycling process requires only about 5% of the energy that was needed to produce the original metal. With recycled aluminium, we can re-manufacture the same products from which it comes.

Energy Advantages

One of the factors that is usually proposed to the buyer when choosing a new frame is the savings they will get by reducing the energy consumption of their home over the years. Many nonsenses and sometimes false statements are used for this purpose. The arguments we set out are based on conclusions drawn from technical studies carried out by the prestigious and accredited TECNALIA laboratory.

The main conclusions are:

By replacing any “old” window with a new quality one, you get considerable energy

savings, regardless of the material chosen.
When changing our "old" window to an aluminium or plastic (PVC) one with similar characteristics, the energy savings achieved will be practically the same.

You may also wonder what will happen over time. Savings should be achieved in the short, medium and long-term. When choosing the window, we must consider the strength and durability of the product. It is essential that the window maintain its performance intact over time, resisting deformations and loss of colour.

It is often read on the internet that plastic (PVC) saves a great deal more than aluminium. The previous statements discard these arguments based on comparative studies of aluminium windows from 40 years ago with current plastic (PVC) windows.

Durability and strength of materials

It is very easy to find aluminium joinery that has been installed decades ago that keep their qualities intact.

Can we say the same about other materials?

Seventy years after its installation, the windows of the Empire State Building in New York have been revised to adapt their glass to modern sun protection technologies and adjust their fittings to ensure their proper functioning. After cleaning, the aluminium remains the same. There is aluminium on the facades of fantastic buildings over 100 years old without any changes.

Which is the most resistant, metal or plastic?

A plastic window (PVC) needs a reinforcement inside, usually in steel, so that it does not deform. PVC is nothing more than plastic. Aluminium is a highly resistant material that does not need reinforcements to ensure its magnificent performance.

This same resistance also makes it possible to create solutions that hinder forced intrusion. While other materials are easy to break and deform, a good aluminium product offers much greater resistance, which will make access difficult.

In addition to the quality of the product, it is always recommended to have the service of a professional that guarantees a correct installation of the aluminium joinery. A poorly installed high-quality product will not achieve its intended objectives.

Thermal insulation

This factor is very relevant in the choice of frames, but it is also what is most often manipulated to confuse and manipulate the final consumer.

The frame is composed not only of profiles but also of glass and thermal breakdown. Therefore, a comparative analysis based exclusively on profiles, as has happened over the years, does not make sense, but rather on the overall framework with the combination of the various elements that compose it.

When this false advantage disappears, other determining factors arise, such as quality, durability, resistance, aesthetics, recycling, among others. And in these aspects, the plastic (PVC) always lose.

Ecological Advantages

On this subject, the advantages of aluminium are impressive.

Aluminium is an eco-friendly material, 100% recyclable (allowing it to be done endlessly), or in other words, it is sustainable. This is proved with this information:

> 5% is the percentage of energy used to make it the first time. The same as it is required to manufacture it successively.
> 70% is the percentage of total aluminium produced in the world, in the 125 years of industrial history. The same one that continues in use, since it was recycled several times.

Otherwise, the supposed ecological characteristics of plastic (PVC) do not allow the same type of analysis. Their manufacturers ensure that PVC is recyclable, sustainable and environmentally friendly. However, this is not really the case.

Source: www.mejordealuminio.com

As you know the price of used PVC is null or you even have to pay to have it removed. There is no market for used PVC.

Manufacturers recognize that the most economical alternative is what they call “energy recovery”. That means that PVC waste has to be burned to generate heat through combustion and “recover” a small part of the energy spent in its manufacture.
In conclusion, most of the PVC used cannot be recovered for re-use, cannot be recycled

and, in its "energy recovery", great care must be taken with the emission of dioxins and the storage of ashes.

Source: www.mejordealuminio.com

Can we manufacture the same products with recycled PVC, as in aluminium?

The answer is NO.

Do you feel safe in case of fire?

It is true that it is an unlikely situation and one that we usually do not think about, but a fire in your home can occur. The choice of an aluminium joinery provides great safety in case of fire.

The aluminium joinery will withstand much higher temperatures and will not release any harmful substances, which manufacturers of other materials can not guarantee.

Aluminium does not burn or emit any type of toxic substance. Its melting point is 660 ° C, a temperature much higher than other building materials, but can be reached when the fire

reaches a very advanced stage.

In the case of roofs, the incombustibility of aluminium and its high melting point help the building to "open", allowing heat and smoke to escape in case of fire. This reduces the thermal load on the most important elements of the structure, extending the time available for evacuation and helping the firefighting.A caixilharia de alumínio resistirá a temperaturas muito maiores e não libertará nenhuma substância nociva, coisa que os fabricantes de outros materiais não podem garantir.

Aesthetic Diversity

Aluminium is chosen by the most prestigious architectural studies to find multiple architectural solutions.

It is a material that allows freedom of creation, different decorative solutions that provide numerous aesthetic possibilities, and wide constructive solutions. With it, there are still endless trims, several options of designs and bicolour aesthetic trims.

Quality of the trims

Ensuring the quality of the final product is a priority for the aluminium sector.

For this reason, in order to guarantee perfect trims, the sector has 3 internationally renowned quality brands: Qualicoat for lacquered aluminium, Qualanod for anodized aluminium and Qualideco for decorative aluminium trims, as in the case of the wood effect.

When requesting an aluminium product, require your installer to ensure that the trim he offer you follow the rules of one of this quality brands.