



Lebronze alloys world leader of performance materials for critical applications

REDUCE DEPENDANCE ON CRITICAL MATERIALS WITH LEBRONZE ALLOYS

January 2026

From criticality to sustainability: LBA's roadmap for metals

The European Commission has classified copper as a critical and strategic material for its future and sovereignty. Similarly, the US government has added copper to the list of critical minerals - the metal being deemed vital to the country's economic and national security. In the meantime, the metal price is hitting all-time highs. This means that copper poses supply risks and is of great economic importance, and it's not the only material under scrutiny. How can industries secure their metal supplies? What does Lebronze alloys do to reduce dependence on critical materials, primarily copper? Let's go through 6 actionable levers.

1 - Reduce the consumption of primary, imported copper

Most developed countries import large quantities of pure copper to meet their needs, often in the form of primary cathodes, i.e., copper that comes from mines. The same countries export used copper scraps for which they don't have enough use locally. Lebronze alloys operates differently: our foundries use more than 80% of local, recycled metals.



Arthur Warjas - Director of the Suippes Plant

"Our upcycling facility in Suippes reuses a growing range of waste from our customers and recycled material sources in France and Europe. We continue investing in the upcycling facility as well as in the foundries in order to use directly more recycled sources."

awarjas@lebronze-alloys.com

The inputs that we use come in vast majority from short recycling loops, i.e., from production or demolition waste, or from products at the end of their lives. This reuse reduces the need for imports of primary copper.

Lebronze alloys has won the Grand Prize for companies involved in the SME Circular Economy category. It's good for sovereignty, for the environment, for energy consumption!



Alice Briot - Director of Sustainable Performance

"Lebronze alloys develops its circular economy by recycling scrap generated by its customers as well as end-of-life products. To promote recycling, Lebronze alloys has helped to create, and implemented, the AFNOR standard A51-320, which defines the calculation method of recycled content for copper and copper alloys. Lebronze alloys will communicate the recycled content of its products in Q1, 2026."

abriot@lebronze-alloys.com

2 - Produce and deliver the right quantities of metals

Lebronze alloys continuously reduces the quantities of metals that make up the products that we deliver, in close collaboration with our customers. To do so, our service centers can adjust the deliveries (quantities, dimensions, delivery schedules) to the precise needs of the customers. We apply the principles of Ecodesign to propose solutions that fit precisely with the requirements while minimizing any overproduction or overdelivery.

Our "near net shape" solutions include profiles and blanks that minimize downstream material losses. We also produce parts according to the designs of our customers, usually through a co-development approach that optimizes the global metal yield. And we are delighted to recover any scrap generated in the downstream processes, which we can reuse optimally in our foundries.



Furcy Langlois – Global Area Director, profiles

“Producing as close as possible to the final dimensions minimizes losses at the various stages of manufacturing. To achieve this, when possible, Lebronze alloys produces blanks or profiles that already prefigure the final shape of the part. This so-called 'near-net-shape' approach also brings energy gains and allows quality to be optimized from the start, while taking into account the final dimensional specificities. Overall, the benefit is an unparalleled cost/performance ratio.”

flanglois@lebronze-alloys.com

3 - Reduce the weights of the parts

Lightweighting is not only an objective of material savings, but it brings also functional benefits: energy savings for embarked components, better performance through reduced inertia, miniaturization of components to integrate ever more functions in a given space, etc. By precisely combining the material properties necessary for the design of parts, our alloys allow to lower the weights of the final components, to simplify their design and to reduce the quantities of metal used.



Thierry Soreau - Product manager

“Our high copper alloys combine excellent electrical or thermal conductivity with optimized mechanical characteristics. This allows our customers to design parts with optimized geometries, which are therefore lighter. For example, alternators in nuclear power plants use our CuCrZr alloy to replace pure copper. Our Cuprofor[®] alloy, with its optimized brazing properties, allows for secure pressure withstand while providing good thermal conductivity. The gain, in addition to the lower quantity of metals required, is the lightness, which reduces the carbon and energy footprint over the entire life cycle of the products.”

tsoreau@lebronze-alloys.com

4 – Make durable products

The more the products continue operating in perfect conditions, the less new metals are needed. No planned obsolescence with Lebronze alloys products! Thanks to their outstanding resistance, our materials and parts last longer, which brings down the Total Cost of Ownership and generates continuous material savings. These benefits are particularly important for critical applications, where reliability is key and maintenance costly or downright impossible.

Thierry Soreau - Product manager

“The outstanding properties of our alloys: anti-corrosion, anti-erosion, mechanical resistance, self-lubrication, resistance to stress cycles, anti-galling, etc., make them unbeatable in situations of extreme constraints and ensure in all circumstances an exceptionally long life. Our products are designed to last. And when they have finished their mission, they can be easily recycled without losing the properties of the metals contained.”

tsoreau@lebronze-alloys.com

5 – Reduce and substitute critical materials

The concentration of sources of many materials is a risk that is increasingly palpable. To ensure self-reliance, companies must address dependence to all critical materials, copper and nickel being just two of many. Today, elements with low volumes can cause strain or disruption. Lebronze alloys makes sure that all the inputs we use are as readily available as possible. This urge to propose reliable, sustainable solutions includes the substitution of Beryllium Copper with less risky high-performance alternatives. Lebronze alloys partners with customers to accompany this journey, while ensuring the continuous secure supply of the materials currently qualified and used, compliant with norms and traceability requirements.



Guillaume Léger - Product Manager

“90% of the primary Beryllium used in the world comes from one sole source. It is therefore important to propose alloys with recycled Beryllium. In addition to this supply risk, Beryllium is increasingly considered negatively from an ESG standpoint. Lebronze alloys has developed a range of alloys that do the job of copper beryllium but don’t include any harmful or controversial material, particularly under our brand Hardiall®. The applications are wide ranging, from ball bearing rings to miniature connectors. The benefits, in addition to risk reduction, include improved mechanical and surface properties and optimized transformation properties.”

gleger@lebronze-alloys.com

6 – Ensure traceability and authenticity

Global trade is increasingly complex and prone to manipulations, especially regarding critical materials. Cases of forged certificates and counterfeits regularly pop up in the news. Materials from banned or controversial sources do circulate. Our customers are rightly concerned with the origins of the materials and parts that they source. They need to make sure that products are authentic and compliant with qualification requirements, ESG declarations, and international trade rules. Industrial property rights must be respected.

As an integrated supplier from foundry to customer service, Lebronze alloys, together with its recognized partners, can provide all the guarantees regarding the origin of the metals used, the production and supply chain qualified steps that our products have gone through, the full respect of industrial property rights of all involved parties, and the compliance with all trading rules, worldwide.



Christophe de Laforcade - Aerospace Business Development Manager

“Regarding Airbus QPL approved materials, our customers need to ensure that they only procure materials from an Airbus approved manufacturer. Lebronze alloys has set up an online service that helps ensure such compliance:

[*Airbus QPL Tool - Lebronze alloys*](#)

This brings more safety in the airs and helps fight counterfeits and unsuitable products.”

cdelaforcade@lebronze-alloys.com

Lebronze alloys offers a range of over 250 metallurgical formulations for a wide variety of critical applications. They allow to reduce consumption of copper and other critical metals through recycling, optimization of properties, weight reduction, and durability. At all stages, they minimize supply chain risks, ensure sustainable and sovereign development, and deliver optimum performance. Let's talk about it!

Didier Pitot - VP Strategy

dpitot@lebronze-alloys.com

