



ALUMINIUM USAGE IN CARS SURGES AS AUTOMOTIVE INDUSTRY SHIFTS TOWARDS ELECTRIFICATION

Brussels, 2 May 2023

Press Release

A recent [study](#) commissioned by [European Aluminium](#) and conducted by [Ducker Carlisle](#) has found that the average amount of aluminium used in European cars has increased by 18% from 174 kg in 2019 to 205 kg in 2022. The study predicts this trend is set to continue, with the average aluminium content projected to increase from 205 kg in 2022 to 237 kg by 2026 (+15.6%) and 256 kg per vehicle by 2030 (+24.9%).

According to the study, the trend towards lightweighting and electrification in the automotive industry is driving a significant increase in aluminium content. Electric vehicles, in particular, are contributing to this growth, with a battery electric vehicle (BEV) produced in Europe in 2022 containing 283 kg of aluminium on average compared to just 169 kg in a petrol or diesel ICE-only car. The average aluminium content in an electric vehicle is expected to increase further by 9.5%, to 310 kg, between 2022 and 2026. This tremendous growth in aluminium usage in BEVs is mainly attributed to its use in e-drive housing, battery pack housings, ballistic battery protection, and cooling plates. Additionally, aluminium plays a crucial role in electromobility infrastructure, including power cables and charging stations. The unique recyclability of aluminium also safeguards that the material put in cars today will be ready to be used again and again after the car has reached its end of life.

“Our latest assessment reinforces the crucial role of aluminium for lightweighting,” says H el ene Wagnies, Principal at Ducker Carlisle. *“With the acceleration of powertrain electrification – which turns out to further speed up with every new update of vehicle production forecasts - the requirement for lightweighting to offset battery weight has been increasing significantly and, with it, the aluminium content in cars. Beyond EV-specific components, the implementation of large and mega castings in the body structure of the car will also strongly contribute to a higher aluminium intensity. With the EU’s ambitious target of a 55% reduction in CO2 emissions for cars by 2030, aluminium will continue to be critical in the material mix for car makers to be able to achieve their sustainability goals, and will grow in all product forms – extrusions, sheet, castings as well as forgings.”*

In response to the growing demand, Florian Stadler, Managing Director of AMAG rolling and Chair of European Aluminium’s Automotive & Transport Board, underscores the urgent need for EU policymakers to provide adequate support measures to the European aluminium industry, which is currently facing increasing production losses, especially with regard to primary production due to the ongoing energy crisis and an unlevel global playing field.

“The demand for aluminium is rapidly increasing as the automotive industry accelerates towards lightweighting and electrification. To meet this surging demand, policymakers must act to ensure that sustainable aluminium with a low CO₂ footprint, locally produced or recycled in Europe, is readily available to car manufacturers. By doing so, we can reduce our dependence on imports, create jobs in Europe, and achieve our sustainability goals. It’s time to shift into high gear and drive Europe towards a cleaner and greener future,” says Florian.

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About the study:

The study covers 100% of the EU and UK’s car production in 2022 and includes data from automotive OEMs, suppliers, and European Aluminium member companies. It is based on a detailed analysis of the use of aluminium castings, extrusions, forgings, and sheets for 12 component families. A summary of the study is available on European Aluminium’s website.

About European Aluminium:

European Aluminium, founded in 1981 and based in Brussels, is the voice of the aluminium industry in Europe. We actively engage with decision makers and the wider stakeholder community to promote the outstanding properties of aluminium, secure growth and optimise the contribution our metal can make to meeting Europe’s sustainability challenges. Our 100+ members include primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations, representing more than 600 plants in 30 European countries. Aluminium products are used in a wide range of markets, including automotive, transport, high-tech engineering, building, construction and packaging. For media requests: Kelly Roegies, Senior Manager Communications, M: +32 471 80 20 98, roegies@european-aluminium.eu