

Aluminium content in cars up 20% in the last three years

14 October 2019 - A new study published by European Aluminium estimates the average aluminium content of European produced cars to reach nearly 180 kg in 2019, meaning a 20% increase since 2016. The study also forecasts the average aluminium content to further increase to almost 200 kg per vehicle by 2025, in line with the most positive scenario that was developed in 2016. The positive outlook and uninterrupted aluminium growth is largely attributed to aluminium's role in lightweighting cars and as an enabler of electromobility.

The amount of aluminium used in cars is expected to see a significant increase by 2025, according to the third edition of the Aluminium Content in Cars study from DuckerFrontier commissioned by European Aluminium. The study predicts that the aluminium content of cars produced in Europe will reach nearly 200 kg per vehicle by 2025, up from 179 kg today. This is in line with the most positive scenario developed by DuckerFrontier in 2016. The study also shows that electric and plugin hybrid vehicles use significantly more aluminium than the average car.

Carmakers' preference for aluminium is largely linked to its lightweight nature, making all cars more energy-efficient, no matter if it is a petrol, diesel or electrified vehicle. Due to its inherent strength and its excellent ability to absorb crash energy, well-engineered aluminium car parts can be made safer than steel but up to 50% lighter. Lighter cars substantially contribute to reducing CO₂ emissions and improving fuel efficiency.

"Aluminium is a true enabler of electro-mobility. The combination of aluminium sheet, extrusions and castings bring perfect solutions for electric vehicles. Both as protection of the batteries and to reduce the weight of the vehicle to increase its performance or range." said Dieter Höll, Chairman of the Automotive & Transport Board at European Aluminium.

The study points to electrification as one of the main drivers for the future growth of the aluminium content in all product forms. Battery boxes, electric motor housings, but also body closures and body structures are highlighted as key applications for increased aluminium penetration in the future. Depending on the car segment, the average aluminum content per vehicle is forecasted to increase from at least 2.9 kg by 2025 in the A-segment and up to 38.0 kg in the D-segment.

The aluminium industry is closely collaborating with car manufacturers to drive lightweighting even further. Only during the last two decades, hundreds of new alloys have been developed to better answer to the demand of the vehicle manufacturers. Higher strength, better formability and improved energy absorption are a few of the areas the industry is focusing on. The aluminium industry is also investing in innovations that will help the transition to electro mobility. Charging stations, electric power cables and wind power plants are some of the products where aluminium is already playing an important role.

The study includes data from automotive OEMs and suppliers and European Aluminium member companies and has been developed by DuckerFrontier. It is based on a detailed analysis of the use of aluminium castings, extrusions, forgings, and sheets for 38 component groups and covering 95% of the EU28 car production in 2019.

The summary of the study can be found [here](#). For more information, please contact Patrik Ragnarsson (ragnarsson@european-aluminium.eu)

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. Through environmental and technical expertise, economic and statistical analysis, scientific research, education and sharing of best practices, public affairs and communication activities, European Aluminium promotes the use of aluminium as a material with permanent properties that is part of the solution to achieving sustainable goals, while maintaining and improving the image of the industry, of the material and of its applications among their stakeholders. Our 80+ members include primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations are 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.

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About DuckerFrontier

With 9 offices across the globe - Washington, New York, Troy, Paris, Berlin, London, Shanghai, Bangalore and Singapore - DuckerFrontier is dedicated to support corporations in their growth mandates through custom B2B market intelligence and consulting services. DuckerFrontier's deep sectorial expertise covers diverse industries, with strong focus on Automotive & Transportation, Building Materials, Heavy Equipment, and Industrial Assets. Thanks to a 60-year experience, proprietary datasets, the FrontierView™ market intelligence platform, and unique primary research capability, DuckerFrontier is able to deliver best-in-class independent, fact-based market insights as well as strategies to navigate market risks and unveil growth opportunities in existing or adjacent markets. DuckerFrontier also supports inorganic growth plans, scouting qualified acquisition targets, providing commercial due diligence, and testing receptivity of target owners. DuckerFrontier has been monitoring and analyzing the evolution of aluminum markets for over 20 years (since 1996 in North America, 2006 in Europe), and is at the forefront of lightweighting materials for automotive applications.

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