



## Reducing the environmental burden of automobiles

— essential products for people’s livelihoods and industries

Automakers have been reducing vehicle weight to comply with increasingly strict environmental regulations adopted in countries around the world. Leveraging the strengths of its six main businesses, UACJ is taking advantage of aluminum’s light weight to reduce the weight of all kinds of auto parts and components, thereby helping reduce the environmental burden of automobiles.

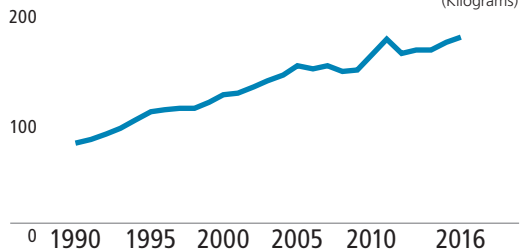
UACJ’s Aluminum is All around Us

# TRANSPORTATION

### Growing use of aluminum for automotive parts

With the advances in aluminum strength and alloy technologies, aluminum has been increasingly adopted for a growing range of automotive parts and components over the years, including engine parts, wheels, doors, and bumpers. The adoption of aluminum for automobiles is expected to accelerate in the future now that stricter fuel consumption regulations have been enacted in developed countries. In response to this growing demand, the UACJ Group is expanding its supply capacity and developing new aluminum parts and components to offer even better solutions going forward.

Average volume of aluminum used per automobile\* (Kilograms)



\* The figures were calculated by dividing the total volume of automotive aluminum products by the total number of automobiles made in Japan.  
Source: Japan Aluminum Association’s Website

## Improving the safety and fuel efficiency of airplanes

### — a means of transportation for connecting the world

Airplanes must be made of materials that are strong enough to withstand the harsh conditions of high altitudes and also lightweight in order to improve fuel efficiency. UACJ has been striving to make aircraft materials both stronger and lighter by developing the most advanced aluminum components, particularly in collaboration with national projects.



### Participation in national projects in the aerospace industry

In Japan, a large amount of aerospace development is carried out through national projects, including the development of rockets and the country's first passenger jet. UACJ actively participates in such projects, including one that aims to develop and increase the volume of domestically produced aerospace materials. As a developer of ultra-strength duralumin, UACJ is helping that project develop a domestically produced aluminum alloy that attains the highest strength in the world.



## Ensuring safe transport of LNG

### — a fuel that contributes to lower CO<sub>2</sub> emissions

Liquefied natural gas (LNG) emits less CO<sub>2</sub> when combusted compared with other fuels. It is transported around the world by LNG carriers, and the tanks of those ships are made of aluminum since it is highly resistant to low temperatures. Possessing some of the world's largest production facilities, UACJ manufactures huge sheets of thick plate for LNG tanks.

# EVERYDAY GOODS

## Enabling long-term food preservation with retort pouches

### — indispensable items for daily eating habits

Aluminum is commonly used for packaging food because it excels at preserving aroma and preventing moisture and discoloration. UACJ manufactures aluminum-based retort pouches under a strict quality control system using advanced printing and processing technologies. By supplying pouches that preserve food for long periods of time, UACJ helps consumers reduce food loss and waste.



## Promoting the recycling of beverage cans

### — essential containers for the beverage industry

While the design of beverage cans has evolved over the years, they are one of the most recycled items today. UACJ produces aluminum alloy sheets to comply with those design specifications and suit all kinds of recyclable cans so that recycling can continue making progress.



## Supplying safe and sanitary packaging materials for pharmaceuticals

— demand for which is rising as society ages

As the populations of many countries around the world grow older, demand for pharmaceutical products is on the rise. Materials for packaging those products must be extremely safe and sanitary. UACJ produces high-quality and safe foil stock for pharmaceutical packaging under strictly controlled sanitary conditions and in compliance with good manufacturing practices.



### Aluminum is at the forefront of recycling

Aluminum cans are so commonly recycled today that many consumers immediately associate them with recycling. In Japan, for example, over 90% of all aluminum cans are recycled. By recycling cans for aluminum can stock, one of UACJ's mainstay products, people can effectively reuse resources and greatly reduce the electricity consumption that would otherwise be needed for extracting and transporting raw materials.

Percentage of aluminum cans recycled in Japan

(Fiscal 2017)

92.5%

Source: Website of the Japan Aluminum Can Recycling Association



## Enabling more compact and diverse IT devices

### — products that enrich people's lives

As mobile IT devices become increasingly compact, their casings and bodies must be made stronger. UACJ exploits the properties of aluminum to develop alloys that attain that strength, which gives more design options to device manufacturers.

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# INDUSTRY AND SOCIETY



## Supplying more attractive building materials

### — essential items for urban development

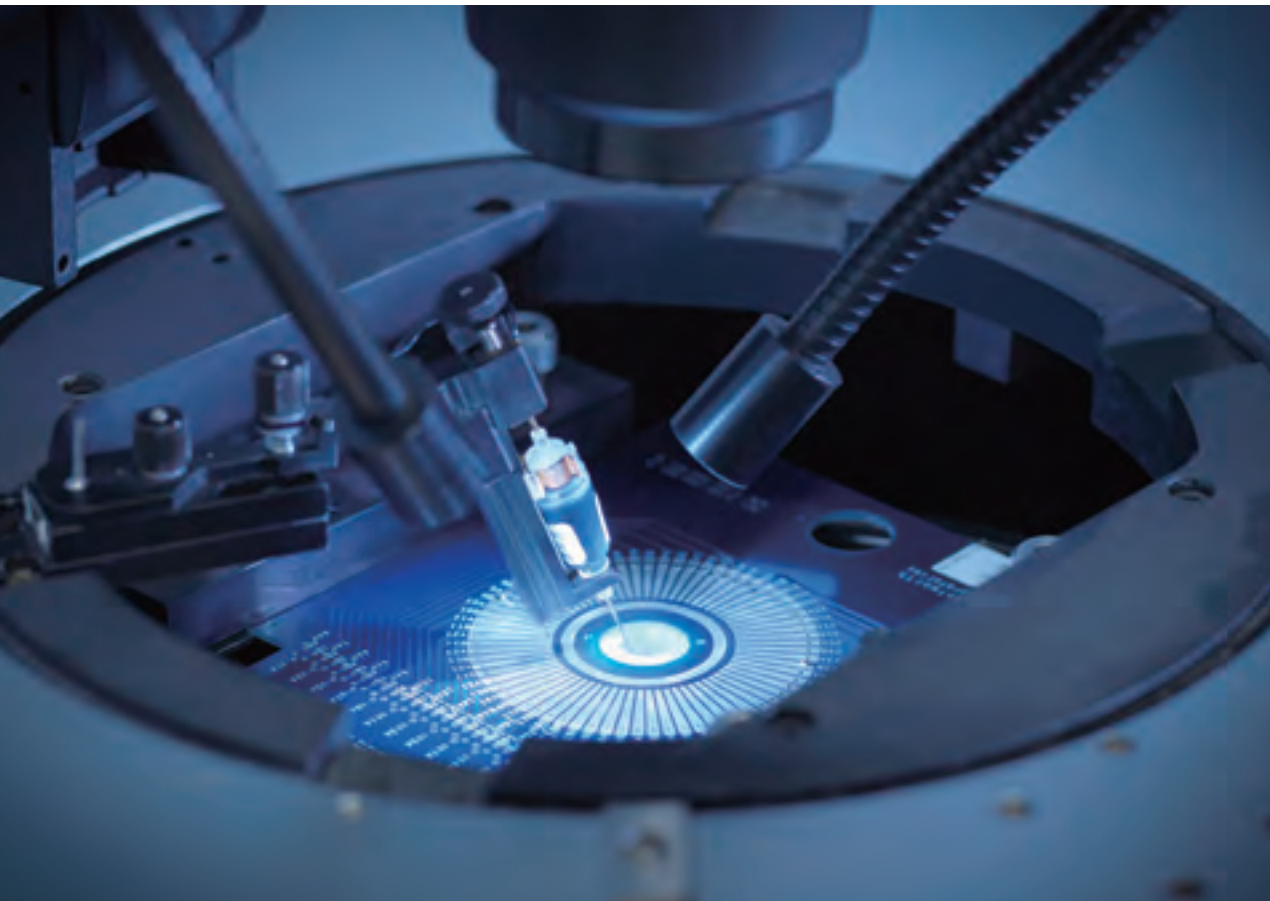
A vast amount of aluminum is used in buildings and structures today because of its attractive appearance, resistance to corrosion, and durability. UACJ makes use of its facilities and technologies to process aluminum in all sorts of ways so that it is adopted even more for buildings in our towns and cities.



## Extending the service life of air conditioners

— indispensable appliances for comfortable lifestyles

Aluminum is used for air-conditioner compressor fins because of its outstanding thermal conductivity. UACJ helps make air conditioners last even longer by developing compressor fin materials that not only attain higher thermal conductivity but also comparatively greater strength.



## Adding more precision to equipment for manufacturing semiconductors

— essential devices for society to function

Semiconductors are used in countless products and systems needed by society to function, from smartphones, automobiles and electric train operating systems to electricity grid and water supply control systems. Aluminum is used in semiconductor production equipment because it performs exceptionally well under vacuum conditions. UACJ supplies aluminum materials of the highest precision for such equipment, which helps boost productivity in semiconductor manufacturing.