



English - Edition 4



**ARCONIC**

ARCONIC WHEEL AND TRANSPORTATION PRODUCTS

Email: [info.wheels@arconic.com](mailto:info.wheels@arconic.com)

[www.alcoawheelseurope.com](http://www.alcoawheelseurope.com)

Alcoa® Wheels<sup>1</sup> is a product brand of Arconic  
© 2019 Arconic Inc. or an Arconic Inc. affiliate

<sup>1</sup> The Alcoa trademarks are owned by Alcoa USA Corporation and used by Arconic Inc. and its subsidiaries under license from Alcoa USA Corporation.

Please find our latest disclaimer here



# Alcoa<sup>®</sup> Wheels

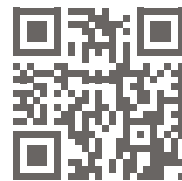
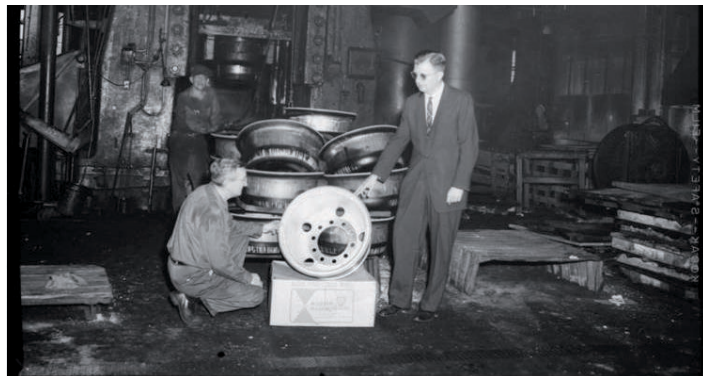
Wheels you can trust

# Alcoa® Wheels

## The best solution for your business

### Leading manufacturer of aluminium wheels

We advanced the transportation industry with the first forged aluminium wheel in 1948 and have been reinventing it ever since. Find more information on our website: [alcoawheels.europa.com](http://alcoawheels.europa.com)



We offer a wide range of forged aluminium wheel dimensions, from 17.5"/19.5" to an extensive variety of 22.5" wheels. Our high-quality Alcoa® Wheels can be selected in the truck, bus and trailer manufacturer's option books as well as they are available through our wide network of official Alcoa® Wheels distributors.

Find here the most nearby to you:  
[www.arconic.com/alcoawheels/europe/en/where-to-buy.asp](http://www.arconic.com/alcoawheels/europe/en/where-to-buy.asp)



Alcoa® Wheels is a brand and product of the Arconic Wheel and Transportation Products business unit, which is part of Arconic Inc. (formerly known as Alcoa Inc.).

# Alcoa® Wheels

## Your benefits, our commitment

Alcoa® Wheels are forged from one solid block of aluminium. With an 8,000 tons press, the block is forged into a wheel shape. Once forged, the wheels are heat-treated to maximize overall mechanical strengths. The Alcoa® Wheels forging process aligns the grain flow of aluminium with the shape of the wheel, even in the critical area where disc and rim meet. This process results in wheels with unrivalled forged strength that withstand the most severe tests to ensure highest standards and quality. We are so confident in the durability and quality of our wheels, we give a 5-year unlimited mileage warranty.

Alcoa® Wheels are a must. The ultimate choice for your vehicle. Compared to steel and cast aluminium wheels, Alcoa® Wheels offer numerous benefits.

## Weight saving

### Up to 51% lighter than steel

By switching from steel to aluminium Alcoa® Wheels you can easily save up to 51% in weight, depending on the wheel size, allowing you to:

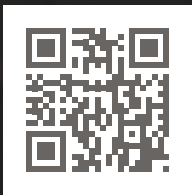
- increase the vehicle's payload
- reduce your operating costs
- boost your profitability











# Calculate your individual weight saving with the Alcoa® Wheels Calculighter!

The individual weight saving can vary based on the specification of the vehicle.



 <b>-203.6 kg</b> Weight savings with Alcoa® Wheels*	 <b>-155 kg</b> Weight savings with Alcoa® Wheels*	 <b>-55.8 kg</b> Weight savings with Alcoa® Wheels*
 <b>-73.2 kg</b> Weight savings with Alcoa® Wheels*	 <b>-89.4 kg</b> Weight savings with Alcoa® Wheels*	 <b>-124 kg</b> Weight savings with Alcoa® Wheels*

\*Compared to exemplarily steel wheel weights with same dimensions and load rates.

# Unrivalled forged strength

Stronger than steel and longer lasting.

Forged aluminium Alcoa® Wheels are literally stronger than steel.

### High strength test results



- Wheels are placed in a press and closed until the wheel deforms by 5 cm.
- a forged wheel from Alcoa® Wheels withstands a load of 71,200 kg before deforming, while
- the rim of the steel wheel already deforms at 13,600 kg

**Alcoa® Wheels are up to 5 times stronger!**





# Contribution to fuel efficiency, CO<sub>2</sub> reduction and improved tyre performance

## Fuel efficiency



Up to  
**-1%**  
Fuel usage

On hybrid buses with Alcoa® Wheels, compared to steel wheels.

## CO<sub>2</sub> reduction



Up to  
**-3 tons**  
CO<sub>2</sub> emission

Replacing 6 steel wheels with Alcoa® Wheels on a 2-axle diesel city bus over the 12-year lifetime of the bus and 750,000 km.



Up to  
**-5 tons**  
CO<sub>2</sub> emission

Replacing 10 steel wheels with Alcoa® Wheels on a 3-axle diesel articulated city bus over the 12-year lifetime of the bus and 750,000 km.



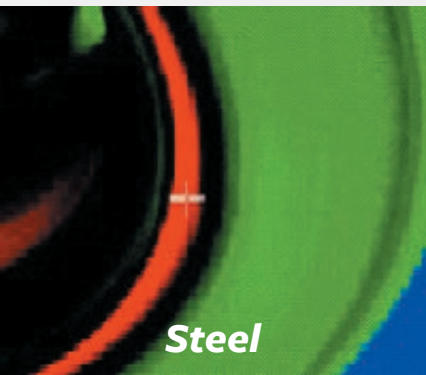
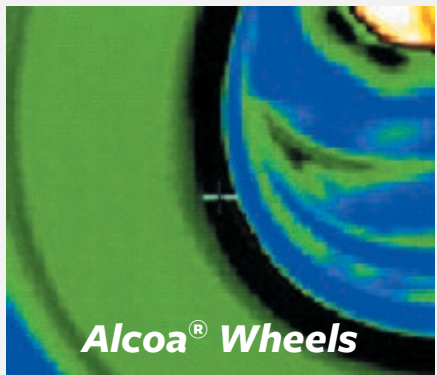
Up to  
**-4 tons**  
CO<sub>2</sub> emission

Replacing 12 steel wheels with Alcoa® Wheels on a 2-axle truck and 3-axle trailer over the lifetime of a truck (2x5 years) and trailer (10 years) and 1,300,000 km.

## Tyre performance

Alcoa® Wheels run truer and contribute therefore to better tyre wear than a steel wheel. This also positively supports rolling resistance.

That's not all! Aluminium is more conductive than steel and the material of choice for heat sinks in laptops and radiator fins for cars and trucks as it helps to dissipate heat. Better heat dissipation impacts tyre life, brake performance and brake pad life positively.



Thermal images of aluminium vs. steel in identical operation conditions show how aluminium Alcoa® Wheels run up to 22°C\* cooler.

*\*internal testing*

# Alcoa® Wheels' finishes

**Dura-Bright® EVO**

**LvL ONE®**

**Brushed**



Great looks, easy maintenance

Entry level wheel with a brilliant finish

Basic maintenance finish



# Alcoa® Wheels' finishes

## Dura-Bright® EVO

Great looks, easy maintenance

Alcoa® Wheels are available with Dura-Bright® EVO surface treatment that keeps wheels looking bright and shiny for years without polishing. Maintenance is extremely easy by just using water and soap thanks to the extraordinary technology.



### Conventional coating



← Clear Powder Coat  
← Conversion Coat  
← Aluminium

### Alcoa® Wheels proprietary treatment



← Clear zone  
← Transition Zone  
← Aluminium

Dura-Bright® is not a coating, but a surface treatment that penetrates the aluminium and becomes an integral part of the wheel. It will not chip, crack, peel or corrode, like conventional coatings do.

The Dura-Bright® treatment is available on almost all Alcoa® Wheels sizes. For more information refer to the Alcoa® Wheels specification sheet, available for download on our website [www.alcoawheels europe.com](http://www.alcoawheels europe.com).

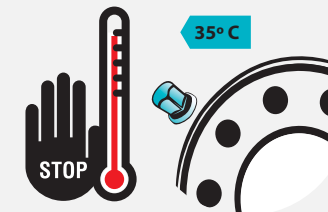


## Cleaning Dura-Bright® wheels

There is no easier wheel to maintain than a Dura-Bright® wheel. Just 6 steps to follow for fabulous looking wheels:

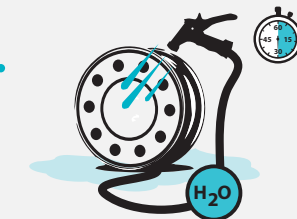


1.



Allow wheels to cool below 35° C (95° F).  
Remove nut covers.

2.



Rinse with water for at least 30 seconds.

3.



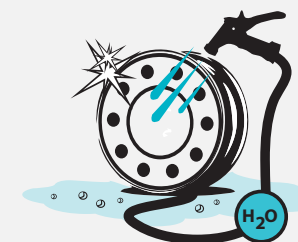
Pour Dura-Bright® Wheel Wash in a bucket.  
No need to dilute with water.

4.



Clean the wheel.

5.



Rinse the wheel.

6.



Repeat weekly.

For more information: [youtu.be/QU9ggcm8HhI](https://youtu.be/QU9ggcm8HhI) . . . . .



# LvL ONE®

Arconic's advanced LvL ONE® finishing technology results in a brilliant finish with a smoother and glossier surface than Brushed.

LvL ONE® wheels require the usual procedure when it comes to maintenance. If a shiny surface is desired, polishing is needed. Nevertheless, the wheel looks great and comes with the same advantages as the other finishes of Alcoa® Wheels.



# Brushed

Brushed is a basic maintenance finish. Brushed Alcoa® Wheels do not corrode and repainting is not necessary.

# Cleaning LvL ONE®, Polished and Brushed wheels



1. Rinse with warm water; preferably with a high pressure cleaner.
2. Pour a quantity of ALclean into a bucket and dilute with 1, 2 or 3 parts of water.
3. Recommended quantities:  
1. for difficult spots  
2. for medium pollution  
3. for regular use  
4. for frequent use
4. Gently brush ALclean onto the wheel.
5. Rinse with clean water. Repeat these steps if needed.
6. Dry the wheel.

# LvL ONE® and Polished wheels

7. Continue by applying a small amount of ALpolish.
8. Spread it evenly over the wheel using a moist cloth and polish the wheel
- ! Repeat steps 7 and 8 section by section to prevent the polish from drying out



# Technology

## Ultra ONE®

### The Wheel Reinvented - The Lightest, The Strongest

Ultra ONE® Alcoa® Wheels are our lightest and strongest wheels. They are made of Arconic's latest innovation alloy named MagnaForce®. The Arconic MagnaForce® alloy is 17 percent stronger than the industry standard alloy allowing to create lighter wheels without compromising on their strength.



# Specialised applications



## Dura-Flange®

### Additional protection for an even longer service life.

Dura-Flange® Alcoa® Wheels have a proprietary treatment that provides a protective shield to reduce rim flange wear, giving them up to double the lifetime compared to other aluminium wheels under the same conditions. Dura-Flange® wheels are the most appropriate for transport where loads are heavy and prone to shifting, causing the tyre bead to rub against the wheel flange.



## Dura-Bright® / Dura-Flange®

### Two revolutionary treatments combined into one

Dura-Bright®/Dura-Flange® Alcoa® Wheels are the result of 2 treatments combined, resulting in a shiny looking easy to maintain wheel with a protective shield to further increase the wheels' service life.



## WorkHorse®

### Disc brake protection and increased wheel load.

WorkHorse® Alcoa Wheels are designed without ventilation holes to protect the disc brakes from sand and gravel. WorkHorse® wheels are mainly used on construction vehicles with disc brakes.

The wheels are available in selected wheel sizes: 22.5"x9.00" and 22.5"x11.75", offset 120 mm.

