

# Alcoa® Wheels

Experience forged Alcoa® Wheels with unsurmountable strength and lightness. With right combination you can now get up to 43% total weight saving comparing to steel wheels. Every wheel has a five year warranty without mileage limit.

## Benefits of Alcoa® Wheels

- Less weight – more load
- Outstanding forged strength
- 5 year guarantee
- Less fuel consumption
- Longer life for tyres and brakes due to better thermal conductivity
- More ecological

## Weight saving compared to steel wheels

Alcoa® Wheels reduce the weight of your vehicle on average:

- 12,0 kg per 19,5 x 7,50 wheel
- 13,8 kg per 19,5 x 8,25
- 12,3 kg per 22,5 x 8,25
- 15,3 kg per 22,5 x 9,00
- 25,0 kg per 22,5 x 11,75 ET0
- 17,8 kg per 22,5 x 11,75 ET120

With 9-axle combination this sums up to 440 kg.

## Unsurmountable strength

**Alcoa® Wheels** wheels are forged from a single piece of aluminum. No welding, plates or joints. The powerful alloy is forged in shape with an 8000 tons press aligning the grain flow of aluminium with the shape of the wheel. This results in unrivalled forged strength that withstand the most severe tests. The total strength is maximized by heat treatment. Every wheel passes the JWL impact test and LBF biaxial fatigue test where actual driving conditions are taken into account.

Alcoa® Wheels are five times stronger than their steel counterparts. This is measured by placing an equal static load on both rims. A steel wheel loses its shape by deforming 5 cm under 13,600 kg. A single Alcoa® wheel can withstand a load of up to 71,200 kg before similar effect.

## Surface options

Our aluminium wheels come with three different finishes: easy care Dura-Bright® / rim reinforced Dura-Flange® / economical Brushed®. For extreme conditions our current portfolio also offers combined Dura-Bright®/Dura-Flange® treatment on the so-called DD

wheels.

## **Dura-Bright®**

### **Great appearance – Easy maintenance**

Dura-Bright® is not a coating but an innovative treatment that penetrates into aluminium and becomes part of the wheel itself. This prevents cracking and eroding which is often seen on coated wheels.

These wheels you do not have to polish – just washing with soap and water keeps them shiny from wash to wash, even after thousands of kilometres.

## **Dura-Flange®**

### **Extra protection to extend wheel service life**

Alcoa Dura-Flange® wheels feature a specially treated rim flange that reduces wear and extends wheel service life. This treatment provides at least double the life of other aluminum wheels in heavy haul and shifting load applications that cause wheel to get rubbed on the rim flange area. The edge has a two-year warranty without mileage limit.

The Dura-Flange® wheels come with brushed surface except for DD wheels which offer added Dura-Bright® protection for following wheel sizes:

- 19.5 x 7.50
- 19.5 x 8.25
- 22.5 x 7.50
- 22.5 x 8.25
- 22.5 x 11.75 offset 135

## **Brushed**

### **Economical choice with all the weight benefits**

Brushed is a basic maintenance requiring finish. Brushed Alcoa® Wheels do not corrode and repainting is not necessary. Part numbers ending in 0 refer to the Brushed finish.

## **Cleaning the Wheels**

### **Dura-Bright® wheels**

1. Allow wheels to cool below 35° C. Remove nut covers.
2. Rinse with water.
3. Mix water with a mild detergent or use undiluted Dura-Bright® Wheel Wash.
4. Clean the wheel with a soft brush.
5. Rinse with water.

### **Brushed and LvL ONE® 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. Use 3 parts of water for frequent use and undiluted ALclean for difficult spots.
4. Gently brush ALclean onto the wheel.
5. Rinse with clean water. Repeat these steps if needed.
6. Dry the wheel.

For LvL ONE® you can apply small amount of ALpolish. Spread it evenly using dry cloth. Treat the wheel section by section to prevent the polish from drying out.

## Maintenance and support

### Inspect thoroughly and frequently

Safe operation requires thorough examination of wheels and attaching hardware, at frequent intervals, both on and off the vehicle. Clean wheels, inspect valves and look for cracks, corrosion, wear or other damage. Also check the inner dualled wheel when the outer wheel is removed.

### During tyre changes

Thoroughly examine the entire wheel. Pay particular attention to the rim contour and the flanges. Check mounting holes for the enlargement and elongation which can occur if the nuts are not kept tight. Dirt streaks radiating from bolt holes may indicate loose nuts.

It is recommended that valve stems be replaced at every tyre change. To prevent corrosion and leakage do not fit steel wheel valves or unplated brass valves. The threads and O-ring or grommet should be lubricated with a non-water non-metal based lubricant like Alcoa VALVEgrease.

### Overheating

A blistered, blackened or cracked logo decal on Alcoa Wheels may indicate that the wheel has been exposed to excessive heat. The wheels also have a round heat indicator located at the flange next to the roll stamp. Do not use any wheel that has been overheated regardless of appearance.

### Dimensions

The wheel diameter should stay equal in both sides. Check the proper wheel dimension with ball tape or carpenter square or by rolling the wheel on flat surface.

### Sharp edges

Rim flange wear is caused from abrasive material, gathered from the road, rubbing between the flange of the wheel and tyre. It occurs most often in applications with heavy or shifting loads. It can also be caused by when the tyre is underinflated and/or overloaded. If excessive rim flange wear is observed, consider using Dura-Flange® Alcoa Wheels.

Rim flange maintenance is a critical component to ensuring safety on road. There are many tools available to remove the sharp edge on the wheel. Follow the instructions on the **Wheel Service Manual**.

### Limited warranty

Alcoa® Wheels have a five year warranty without mileage limit. Rim flange wear is not a warrantable condition. Only Dura-Flange® treated wheels have two-year extra warranty against sharpening rim flange wear that would require maintenance.

Any form of alteration to wheels like welding, brazing or other heat application is not approved and will make the warranty void. Any wheel that shows signs of alteration should be removed from service and scrapped.

In warranty issues please contact your Alcoa® Wheels importer.