

# Material data and care instructions Aluminium

Notes on using products made of aluminium from Richard Brink GmbH & Co. KG

We manufacture a range of products, such as wall copings, edge profiles, edging solutions and raised beds, from aluminium. This material can be moulded very easily as it is so malleable, yet it is remains extremely sturdy. Aluminium is also very heat-resistant and 100% recyclable.

## 1. How is aluminium corrosion-resistant and are there any limitations?

When it comes into contact with air, aluminium quickly forms an oxide layer that makes it very corrosion-resistant. Nevertheless, different substances like salts or acids can have a destructive effect on the material. Powder coating is a practical solution in this case.

## 2. Aluminium corrosion

In certain circumstances aluminium can corrode. The most common types of corrosion are listed here.

## **Contact corrosion**

As aluminium is a very base metal, contact corrosion may occur when it touches other metals, especially steel. This issue can best be avoided by implementing structural solutions, e.g. by separating the materials with a plastic buffer.

## Stress corrosion

Stress corrosion may occur with aluminium, depending on the alloy used. Stress limits differ from alloy to alloy and can be significantly increased if the correct material is chosen.

## Pitting corrosion

Pitting corrosion occurs with most aluminium materials if they are exposed to electrolytic material removal in an acidic or neutral environment. Pitting corrosion progresses very rapidly with many aluminium alloys.

## 3. Damaging influences on aluminium

Salty sea air, seawater, dissolved de-icing grit and acids – especially sulphuric acid – can destroy the oxide layer and therefore aid corrosion. If contact with these substances cannot be avoided, the use of this material should be reconsidered.

## 4. Use of aluminium in plant systems

Please note that aluminium is generally known to impede plant growth when combined with acidic soil with a pH lower than 5. This may also lead to the aluminium becoming permanently damaged. The entire contents of the planting trough must therefore always have a pH value above 5.

Richard Brink GmbH & Co. KG Metallwarenfabrikation und Vertrieb

Görlitzer Straße 1 33758 Schloß Holte-Stukenbrock Phone 0049 (0)5207 95 04-0 Fax 0049 (0)5207 95 04-20 Mail anfragen@richard-brink.de

www.richard-brink.com

Do you have any questions? We will be pleased to help you!



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## 5. Cleaning and caring for aluminium products

## Mechanical cleaning

Light soiling can be removed very easily with lukewarm water. In the case of heavier soiling, conventional detergents added to water are sufficient. Dry cleaning should always be avoided because it can cause scratches on the surface of the material.

## Cleaning powder-coated surfaces

Environmental conditions can affect the appearance of powder-coated surfaces. Regular cleaning is recommended in order to preserve the attractive look of the material. Lukewarm water with conventional dishwashing liquid is sufficient for this purpose. Avoid scouring agents and scouring cloths.

## Please observe the following additional points with regard to cleaning:

Aluminium products are generally to be cleaned by hand using suitable, non-abrasive cleaning agents.

Avoid allowing dust particles from other metals to come into contact with the product, or generally cutting components with flying sparks near the product, as the surfaces of all materials are very sensitive.

If dust particles or contamination from other metals are present, these must be removed immediately using an appropriate cleaning agent.

Remove protective films early, as otherwise the film and steel surface may bond. Remove adhesive residues with spirit. Warming it up slightly makes removal easier.

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