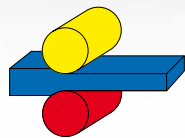
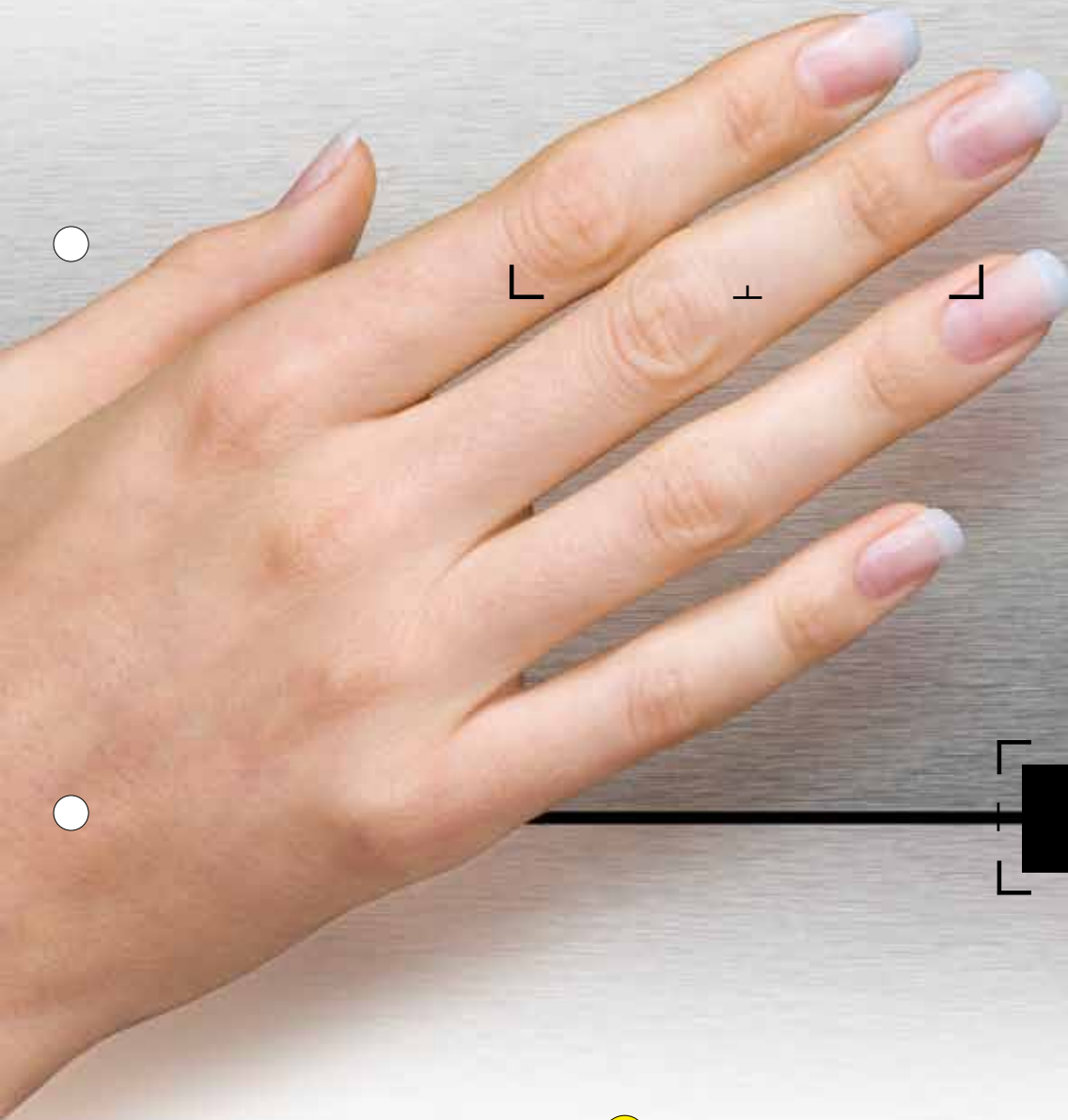


Touching allowed.

Aluminium in high-quality stainless steel look



**HARTMANN**

[www.w-hartmann.de](http://www.w-hartmann.de)

## Aluminium in stainless steel look – the **smart alternative** to stainless steel ...

Aluminium in a stainless steel look boasts an extremely high-quality finish. A specially developed production process is used to emboss the material with a defined rolled structure before the front face is anodised in a stainless steel look. The end result is a perfect imitation of ground stainless steel (approx. 240 grit).



### **Advantages** over subsequently ground or brushed surfaces

The surface structure is created directly in the aluminium rolling mill and is part of the whole process chain. This process enables a uniform and consistently reproducible rolled structure, which makes it possible to exclude the deviations that are common with brushed surfaces. The aluminium alloy and subsequent anodising layer are perfectly matched. Further advantages:

**No lasting fingerprints**

**Over 60% lighter than stainless steel**

**Resistant to neutral cleaners**

**Resistant to corrosion and dirt**

**Weatherproof and UV-resistant**

**High abrasion resistance**

**Anti-static and insulating**

**No residual magnetism**

**Easier to process than stainless steel**

**Non-flammable**

**Sterilisable**

## Processing

Aluminium in stainless steel look is just as easy to process as an anodised aluminium sheet, e.g.

lasering | water jet cutting | drilling | punching | milling | edging | engraving | etc.

## Bonding

Ideal; often used as an alternative to welding. Further information is available on request.

## Stud welding

3 mm material is ideal; 2 mm material must be tested before use. Further information is available on request.

## Printing

Suitable for digital, screen and anodising printing. Further information is available on request.

### Tests

#### Corrosion resistance

AASS test to DIN EN ISO 9227: 2006. In a closed chamber, the test material was subjected to an acetic acid salt spray test for 504 hours.

There were no signs of corrosion on the anodised surface, **around the bending edge or on the uncoated cut edges**. There were no signs of corrosion on the stainless steel comparison sample (1.4301) either.

Thanks to its anti-corrosive EN 5005 (AlMg1) alloy, aluminium in stainless steel look achieves the same corrosion resistance as a comparable stainless steel.

#### Abrasion resistance

Taber Abraser Test to MIL A 8625 (1993). Two abrasion rollers are repeatedly circled over the test material. Following a specific number of cycles, measurements are taken to find out how much material the abrasion rollers have removed from the test objects.

Minimal material removal of 27.4 mg was measured after 5,000 cycles. The amount removed from the comparison sample of brushed stainless steel (1.4301) was three times higher at 87.7 mg.

The anodised aluminium surface is much harder than stainless steel.

#### Graffiti removal

Another test showed that various types of graffiti could be removed without leaving a residue. The cleaners tested did not attack the anodised aluminium.

We are happy to provide further information on request.

## Specification

EN-AW 5005 (AlMg1), H14, in accordance with EN 485-1, 2, 4 and 573-3  
 Front face has a rolled structure, similar to 240 grit  
 Coil anodised to EN 12373  
 Anodised layer on front face approx. 10 µm, on reverse approx. 5 µm  
 Other thicknesses on request.

Also available to EN 14392 on request for use in the food industry

## Product range

Thickness and format	kg/sheet (approx.)	Protective film
0.8 x 1250 x 2500 mm	6.9	Black-and-white 80 µm film on the front face
1.0 x 1000 x 2000 mm	5.5	White laser guard 100 µm film on the front face
1.0 x 1250 x 2000 mm	6.8	--
1.0 x 1250 x 2500 mm	8.6	--
1.0 x 1500 x 3000 mm	12.4	--
1.5 x 1000 x 2000 mm	8.3	--
1.5 x 1250 x 2500 mm	12.9	--
1.5 x 1250 x 3000 mm	15.5	--
1.5 x 1500 x 3000 mm	18.6	--
2.0 x 1000 x 2000 mm	11.0	--
2.0 x 1250 x 2500 mm	17.2	--
2.0 x 1500 x 3000 mm	24.7	--

Also available on request:

Additional thickness from 0.5 - 3.0 mm/  
 fixed format sheets and coils

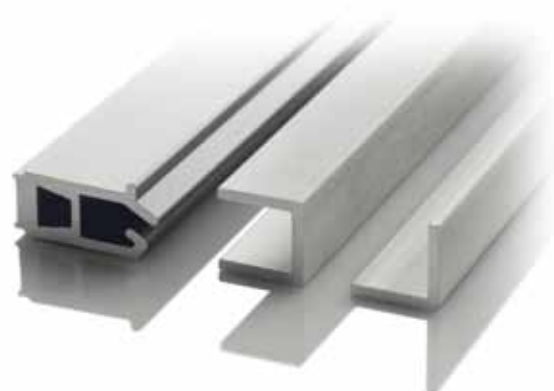
## Additional surface variants

Aluminium in stainless steel look is also available without an anodised surface on request. In this case, a protective film is applied to the surface directly after the rolled structure. This material is recommended for highly demanding forming requirements. The material can then be finished with a stainless steel look or with many other colour anodised variants. **The high-quality rolled structure is always visible and gives the product a really stylish finish.**



## Extruded aluminium profiles

Surfaces in stainless steel look are also available on request with many aluminium profiles – preferably those with straight geometries, such as tubing, angles, etc. Give us a call to discuss your needs.





## ... for **decorative** applications

Thanks to its anti-fingerprint property, aluminium in stainless steel look is ideal for touch-sensitive applications, e.g.



Mechanical engineering



Lighting



Household appliances



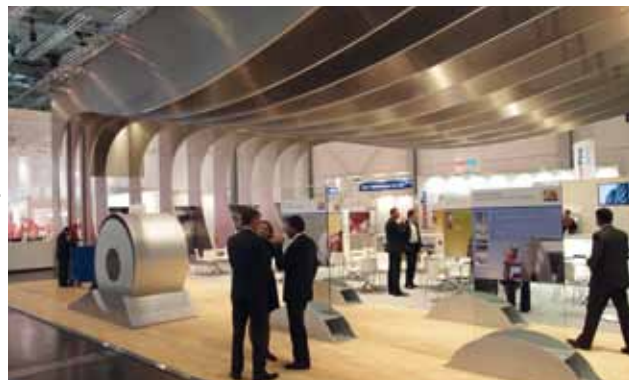
Doors



Housings



Architecture



Shop and trade fair stand construction

## What is **anodising**?

Uncoated aluminium has a natural anti-corrosive oxide skin (0.1 – 0.5 µm). An anodic bath is used to optimise this process under technical conditions. The layer thickness, structure, hardness and visual effect can be precisely defined. The anodised layer is created in an electrolyte. In the electrolyte bath, the aluminium acts as the anode and a direct current is applied. The cathodes are located at the edge of the bath. The required  $Al_2O_3$  anodised layer is created in an electrochemical reaction.

## Why choose anodising?

Technical oxidation converts the soft aluminium surface into a dense and very hard oxide layer. This layer is formed from the metal itself and, unlike e.g. paint, is firmly attached. Anodised aluminium offers optimum protection against mechanical influences, corrosion and weathering combined with a very decorative surface.

In addition to **aluminium in stainless steel look**,  
we stock many other aluminium semi-finished products:

**termolac**<sup>®</sup> (Prepainted aluminium  
in excellent bending quality)

Anodised sheets and coils

Uncoated sheets and coils

Designer sheets

Drawing profiles (uncoated & coated)

Standard profiles (uncoated & coated)

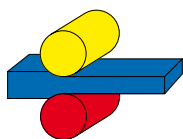
Photovoltaics

... and many other non-ferrous metals

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