

## heroal surface coating

Sustainable, versatile, innovative: quality for the highest demands.



## One system – one colour

### heroal systems made of aluminium

heroal develops, produces and distributes systems for windows, doors, façades, roller shutters and roller doors as well as customised design options for many areas of the building shell. heroal employs outstanding coating technology in order to meet the needs of investors, architects and planners for customised colour designs for different systems.

The biggest challenge that heroal faces is that window and roller shutter systems that are directly connected to one another require different coating technologies. With its expertise, experience and different coating types, heroal offers the best possible solutions. The heroal hwr (highly weather-resistant) coating for extruded profiles is perfectly coordinated with the 2-layer thick coating for roll-formed products.

Around 200 RAL colours are available for these well coordinated systems. Flexible and durable heroal systems and appropriate surface coatings provide for comprehensive options to match any requirement and style. heroal has the ideal solution for every construction project, for example:

- » Refurbishment in traditional building style
- » Modernisation of older building shells
- » New architectural property solutions
- » and many more





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Protection and intensive colours for roll-formed profiles.

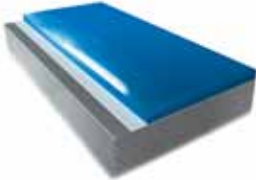

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Added value

# heroal surface coating

Offering durability and a wide range of colours that are able to withstand varying environmental conditions is central to what we do. heroal surface coating opens up a number of creative possibilities that cannot be achieved with other materials, as well as offering coating options to suit every application. The high-quality heroal hwr powder coating with varying gloss and

coating levels enables an outstanding surface finish. The heroal 2-layer thick coating has been developed for use on roll-formed profiles. In addition to these options, which are explained below, heroal also offers Eloxal coatings and decorative film lamination. All of our surface coatings feature exemplary heroal quality and competence and help to preserve the durability of your systems.

## The coating process at a glance

	Product range	Requirements	Product characteristics
<p><b>heroal hwr powder coating</b></p> 	Extruded profiles (e.g. windows, doors, façades, panels)	<p>Normal to high requirements:</p> <p>Outdoor, urban and industrial environments, high UV-impact</p> <p>Extreme requirements (pre-anodisation + hwr powder coating):</p> <p>Aggressive environments such as swimming pools, coastal areas with a high salt content, high UV-impact</p>	<ul style="list-style-type: none"> <li>» Intensive, fade-resistant colours</li> <li>» Comprehensive RAL colour palette</li> <li>» Various gloss levels</li> <li>» Robust and highly weather resistant</li> <li>» Easy to clean</li> <li>» Sustainable and environmentally-friendly</li> </ul>
<p><b>heroal 2-layer thick coating</b></p> 	Roll-formed profiles (e.g. roller shutters, panels)	<p>Satisfies normal and extreme requirements:</p> <p>Outdoor, urban and industrial environments, high UV-impact, aggressive environments such as swimming pools, coastal areas with a high salt content, high UV-impact</p>	<ul style="list-style-type: none"> <li>» Intensive, fade-resistant colours</li> <li>» Easy to clean</li> <li>» Durable</li> <li>» Especially abrasion and weather-resistant</li> <li>» Highly UV-resistant</li> </ul>

<sup>1</sup> Decorative film also available for roller door slats.



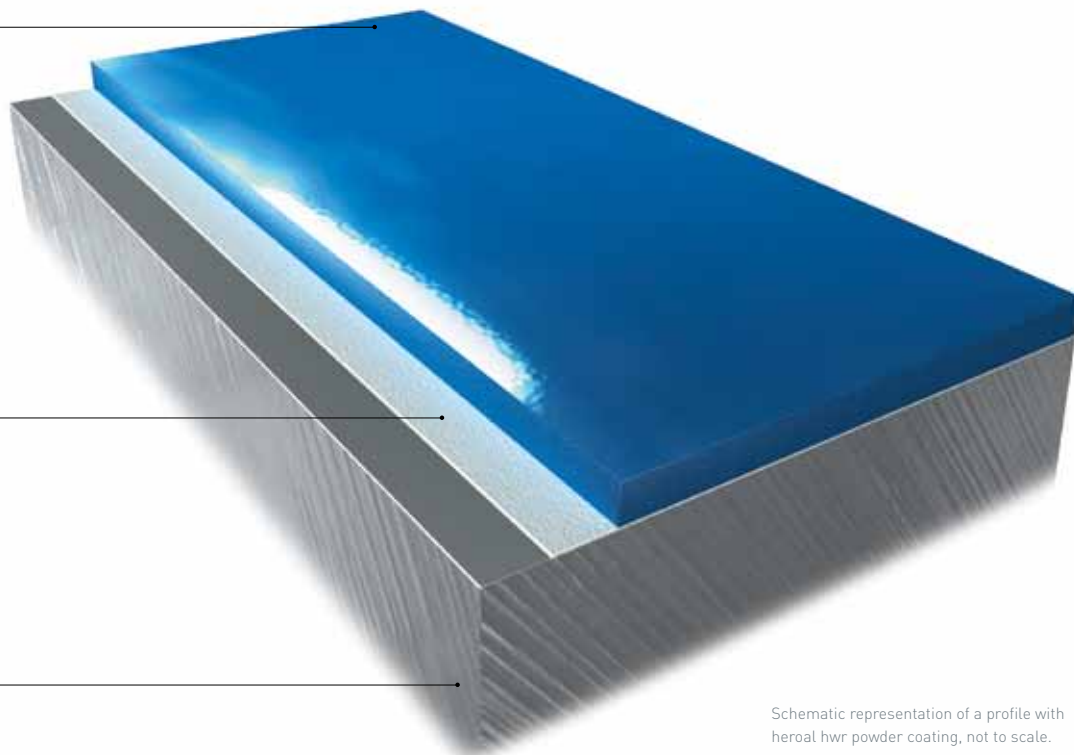
# heroal hwr powder coating

Highest quality standards for outstanding results.

heroal hwr powder coating

Chromium-free passivation

Aluminium base material



Schematic representation of a profile with heroal hwr powder coating, not to scale.

The current trend leans towards greater quality awareness and thus economic sustainability in the architecture of buildings. heroal hwr powder coating has been designed to satisfy stringent architectural demands and has excellent colour stability, gloss retention, weather-resistance and UV protection qualities. In addition, it also offers long-term resistance in industrial environments that are high in pollutants. Architects and constructors can benefit from the wide range of design options, including the entire spectrum of colour tones in the RAL palette, which can be reproduced with perfect accuracy.

### Eloxal appearance with heroal hwr powder coating

The heroal hwr powder coating allows aluminium surfaces to be finished with an Eloxal appearance in order to recreate the natural metallic look of Eloxal surfaces. When it comes to protection and weather resistance, colour stability and gloss retention, the heroal hwr powder coating offers the ideal solution.



heroal maintains a stock of over 500 different powder variants.



# heroal coating technology

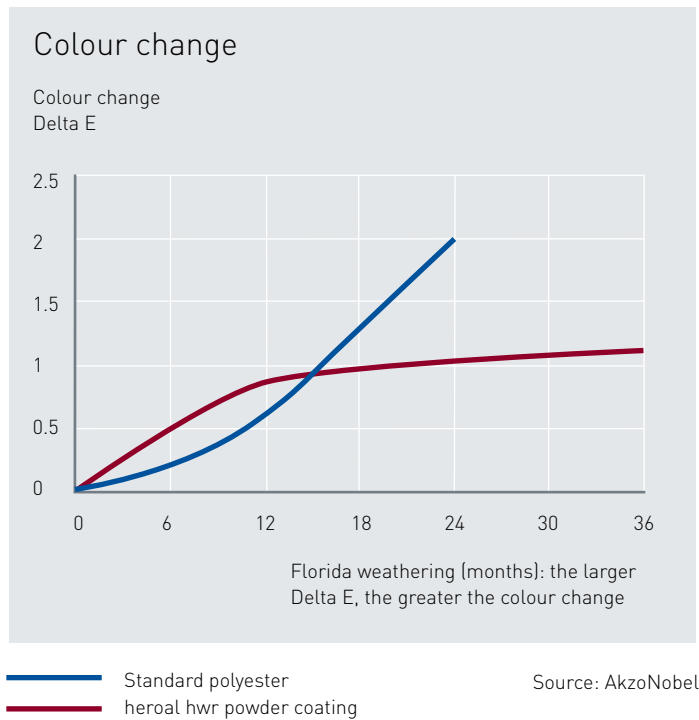
High-performance, efficient and ecological.

## Pioneering technology

heroal has been setting international quality standards in aluminium coating for decades. The new vertical powder coating system, which was commissioned at the end of 2012, is testament to heroal's commitment to future quality standards too. The heroal hwr powder coating meets the exacting requirements of Qualicoat class 2 and complies with the master quality of GSB, as well meeting all ecological requirements.

## heroal – outstanding coatings

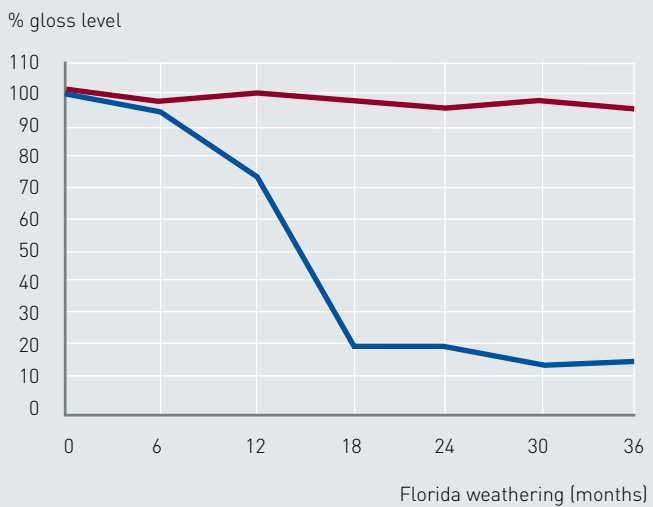
heroal was honoured as finalist of the Green Awards 2013 which are organised by the specialist magazine "besser lackieren". By awarding this top position, specialists acknowledged heroal's in-depth expertise and outstanding finish. The top-class jury included representatives from the Fraunhofer Institute, the German Federal Ministry for the Environment, the editorial team of "besser lackieren" and experts from leading companies such as Audi.







### Gloss appearance



With conventional powder coating



With heroyal hwr powder coating

- Standard polyester
- heroyal hwr powder coating

Source: AkzoNobel

The weathering test demonstrates that heroyal hwr powder coating (right) retains its colour even after being subjected to extreme weather.

## heroal quality seal

Benefit from the heroal standard.

Extremely demanding guidelines require a high level of safety and reliability from the processes used by heroal, documented by tests, for optimum colour uniformity, light fastness and weather-resistance results:

- » Official GSB Premium Coater with the "Approved Premium Coater" quality seal
- » With the class 2 Qualicoat seal
- » Stringent performance specifications and inspections for the award
- » Continuous monitoring by the institutes



## heroal quality assurance

Rely on the heroal laboratory.

By performing regular inspections, the in-house laboratory team can safeguard a consistent level of quality for the heroal hwr powder coating:

- » Checking powders, chemicals and coating materials on receipt of goods
- » Temperature checks during production
- » Monitoring gloss levels, colour intensity and paint quality
- » Impact and cross cut testing



Cross cut test

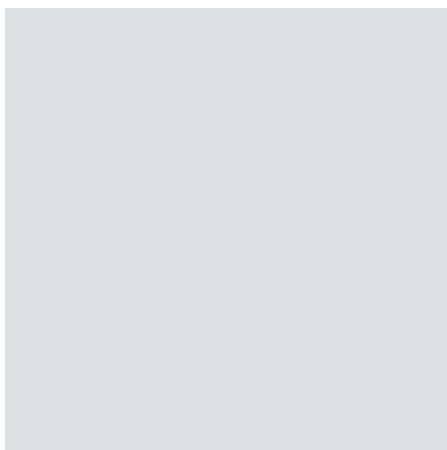


Impact test

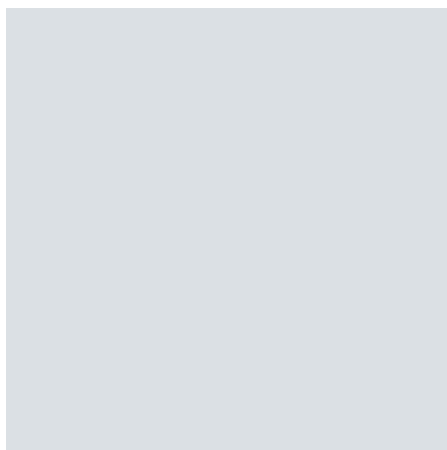


## Aesthetics demands expertise

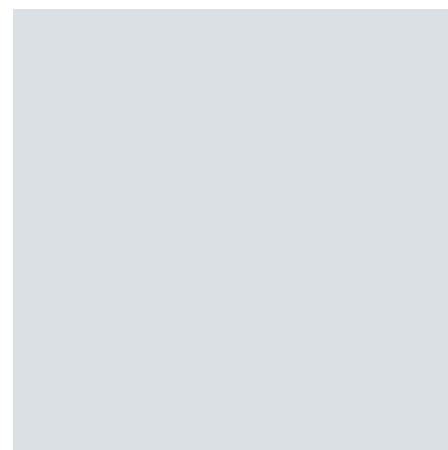
Gloss level and surface structure to meet the highest demands.



Dull matt



Matt



Glossy

Schematic representation of the surface structure

### Coating and gloss levels

heroal offers a wide range of surfaces with varying gloss levels, from dull matt to glossy and metallic colours. By doing so, powder coating opens up a wide range of design options and surface possibilities, even structured surfaces. Varying gloss levels allow for subtle nuances whilst maintaining a consistent colour tone.

### Raffaello

The Raffaello coating, developed and patented in Italy, helps to achieve a customised and high-quality colour surface. This textured finish produces an exceptional surface look that differs considerably from conventional colour coatings: the Raffaello textured finish is characterised by a coarse structure. Colour nuances range from rusty hues and gentle greens to anthracite and white.



## heroal 2-layer thick coating

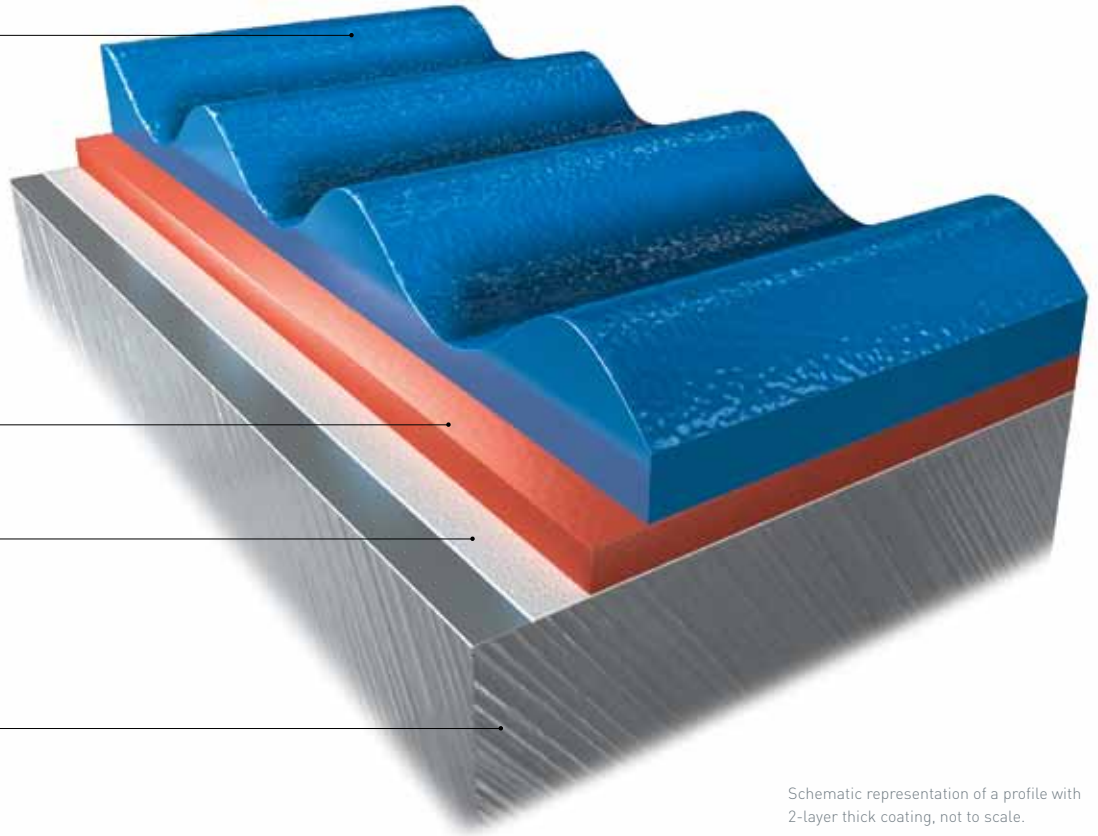
Protection and intensive colours for roll-formed profiles.

Clear coat

Base coat

Pre-treatment

Aluminium base material



Schematic representation of a profile with 2-layer thick coating, not to scale.

A 2-layer thick coating is applied before aluminium profiles are roll-formed (e.g. for heroal roller shutter slats). The coating has impressive colour intensity and retention and an especially high resistance to abrasion and weathering. Experts from "Germanischer Lloyd" have also been impressed by this quality and have certified the heroal 2-layer thick coating for use on vessels in all waters.

### Processing in detail

The thick coating is applied to specially pre-treated aluminium strips and annealed in a two-layer coil coating process. The system is especially resistant to abrasion and is based on a high-quality polyurethane processed with polyamide.

### 2-layer thick coating in hardness tests

The high quality of the 2-layer thick coating is regularly inspected and affirmed by independent test institutes. Abrasion resistance is checked in the Taber abrasion test whereby an abrasive belt is run repeatedly over an aluminium sheet. Once a precisely-defined speed has been reached, no wear should be detected on the coating.



heroal offers a wide variety of RAL and effect colours for a highly customised look.



## heroal services

Added value for heroal customers.

### **Premium quality products and service**

The heroal brand stands for premium quality made in Germany. All systems and components are certified according to ISO EN 9001 and manufacturing takes place exclusively at German production sites using machinery specially designed for this purpose by heroal. With a comprehensive range of services, heroal also sets industry-wide standards.

### **Logistics centre**

The heroal logistics centre guarantees short response and delivery times during the order process. The 40,000 m<sup>2</sup> building complex with fully-automatic high-bay warehouses allows products to be stored and picked in a central location before being passed on to the company's own fleet of lorries for delivery to the customer.

### **Profile bending and edging**

The unique in-house profile bending and edging service allows perfect customisation of heroal systems to exacting client requirements. heroal can produce semi-circular, segmental and three-centre arches and circular elements to customer requirements, in addition to precise, reproducible edging and structural connections.

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



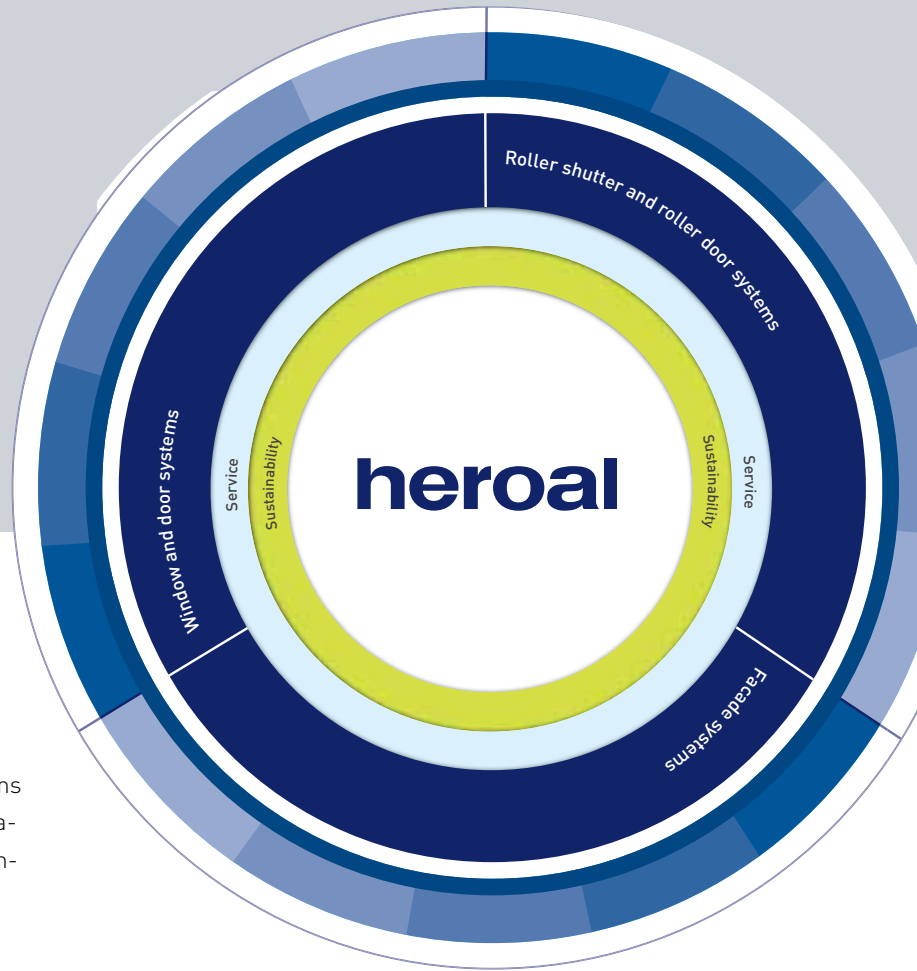


# heroal – the aluminium systems supplier

As a leading supplier of aluminium systems, heroal develops and produces perfectly harmonised systems for roller shutters, roller doors, windows, doors and façades. By minimising energy consumption during production, maximising energy conservation during usage as well as ensuring optimum profitability during system manufacturing and an increase in the value of the building, heroal system solutions make a significant contribution to sustainable construction.

## Innovation, service, design, sustainability

The heroal brand stands for sustainable system solutions that set industry standards by means of practical innovations, service that leads the way in the industry and high-quality design that can be integrated into every type of architecture.



### The heroal system landscape

Roller shutters | Roller doors | Windows | Doors | Façades | Service

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