



# Building systems engineering

Your partner for innovative solutions

Josef Elmer, Key account manager



What we have to offer

## Customer-oriented partnerships and tailored solutions for the the building systems industry

Our high-strength steel grades set benchmarks with respect to their best processing properties and consistently high quality. Substantially thinner gauges and significant cost savings are the result. With our broad range of products and our customized solutions, we offer the ideal material for every customer requirement. Industry-specific material and manufacturing expertise, comprehensive preprocessing possibilities, reliability and relationships based on trust make us a trusted partner to the building systems industry.

We provide a high level of quality and problem-solving expertise:

- Comprehensive technical material and application consulting
- Customer-specific product solutions and development partnerships
- Comprehensive preprocessing tailored precisely to your requirements
- Maßgeschneiderte Serviceleistungen
- Customized services
- Experts and sales offices near you

# Customized solutions and time-tested products in voestalpine quality

Cold-rolled steel strip made by voestalpine is characterized by excellent surface quality and best workability. Our high-strength alform® steels make it possible to reduce material gauges and thus save substantial costs. A wide range of innovative and application-oriented protective metallic coatings and our unique service package round off our portfolio for the building systems industry.

## Cold-rolled steel strip

Best surface appearance

- Universal use, even in applications with high surface demands
- Excellent cold formability
- Highly uniform mechanical properties

## alform®

Excellent cold formability

- Excellent cold formability in the high-strength range
- Excellent toughness and very good weldability
- Best profiling capacity in high-strength steel grades

## Hot-dip galvanized steel strip

As flexible as our customers

- Wide range of applications, even in visible parts
- Best workability and suitable for the most demanding forming requirements
- High corrosion resistance at the cutting edge

## corrender

A new perspective

- Excellent cathodic corrosion protection
- Improved processing efficiency
- Conservation of resources and environmental protection

## colofer® corrender

On the substrate of the future

- Increased corrosion protection
- Improved coating adhesiveness
- Conservation of valuable resources

## Customized solutions for the building systems industry

- Cold-rolled steel strip
- alform®
- Hot-dip galvanized steel strip
- corrender
- colofer® corrender



You will find our entire product range and further information about our solutions for the building systems industry on the Internet at [www.voestalpine.com/steel](http://www.voestalpine.com/steel).

### Hot-rolled steel strip

- Highest product quality and best workability
- Broad spectrum of application-specific and optimized grades

### Electro-galvanized steel strip

- Excellent surface quality and best deformability behavior
- For a wide variety of applications, galvanized on one or both sides

### colofer®

- Application-optimized products
- Customized services and application consulting

### Multi-functional coatings

- Broad and targeted spectrum of high-quality surface systems
- Wide range of properties that meet the requirements of a variety of applications



## Cold-rolled steel strip

### Best surface appearance

Excellent surface quality, best deep-drawing properties and perfect welding results make cold-rolled steel strip an all-round product and allow complex designs practically without limitations. The building systems industry particularly depends on the good processing properties and excellent product quality of cold-rolled steel strip, which guarantees excellent forming, coating and welding properties. Enameling steels can be produced upon request.

### Excellent surface quality

Cold-rolled steel strip made by voestalpine Stahl meet the most difficult challenges with respect to surface appearance and surface cleanliness.

### Excellent workability

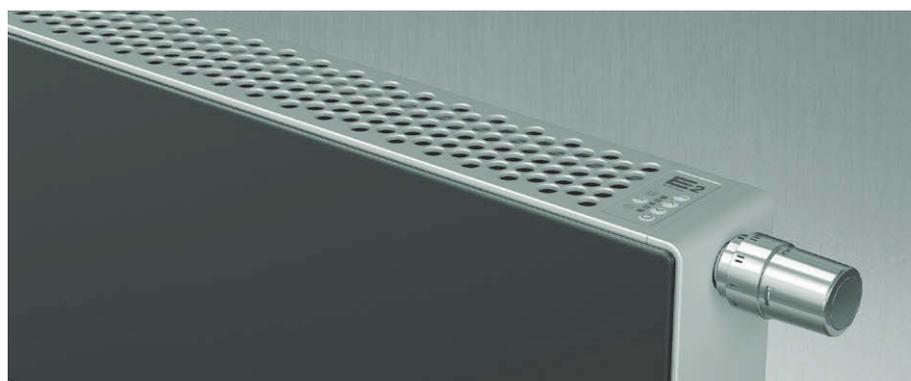
Excellent deep-drawing properties coupled with the highest uniformity of mechanical characteristics in the cold-rolled strip guarantee a broad spectrum of applications. The high degree of surface cleanliness guarantees prolonged electrode service life, rapid welding speeds and reproducible high-quality weld results.

### Excellent paintability

The most modern texturing methods guarantee homogeneous roughness structures across the entire steel strip. This provides the perfect conditions for subsequent coating and painting operations.

### Excellent enameling behavior

Special chemical compounds coupled with matching coiling and annealing parameters guarantee excellent material properties in the substrate as required by the most modern enameling processes.





**alform**<sup>®</sup>

## alform<sup>®</sup>

### Excellent cold formability

alform<sup>®</sup> steels are thermomechanically or normalized hot-rolled steels with excellent cold-forming behavior, even in the high-strength and ultra-high-strength range.

We offer alform<sup>®</sup> steels as hot-rolled steel strip in coils, slit strip, cut sheets or as heavy plates. alform<sup>®</sup> steels find their applications wherever high workability coupled with high strength and weight savings are in demand.

#### Best formability

Optimum cold-forming properties are ensured by the fine grained microstructure, the high degree of purity and high consistency in the mechanical properties. As a result, considerably narrower bending and edging radii compared with structural steels and case-hardening steels of the same strength class can be applied.

#### Optimum cutting and blanking capacity

alform<sup>®</sup> steels are ideally suited to thermal cutting (laser, plasma and oxy-gas cutting) as well as mechanical cutting and punching. The minimized residual stress of the plates prevents distortions during cutting.

#### Excellent weldability

The low carbon equivalent and low carbon content guarantee a large field of welding parameters, a low degree of age-hardening and freedom from cold-cracking without preheating. alform<sup>®</sup> steels also demonstrate excellent formability of welded joints and improved resistance to tempering when compared to case-hardening and heat-treatable steels.



## Hot-dip galvanized steel strip

As flexible as our customers

Hot-dip galvanized steel made by voestalpine is characterized by high corrosion resistance, excellent working properties and a wide spectrum of applications. Our comprehensive material portfolio and surface qualities place us in a position to optimally meet requirements such as good forming properties and excellent component quality.

### Excellent cathodic corrosion protection

Zinc coatings guarantee corrosion protection on surfaces, doublings, flanges, cut edges and layer defects. Layer thicknesses of up to 40 microns are available for especially demanding requirements.

### Excellent deformability behavior

We supply a large spectrum ranging from super-soft deep-drawing-quality to high-strength and heat-hardenable grades (bake-hardening steels). The homogeneous roughness and good layer formability aid in processes that entail difficult forming conditions.

### Good suitability to joining and welding

Minimum coating thickness deviations provide the basis for good joining behavior. Optimized behavior is guaranteed when spot-welding lower layer thicknesses.

### Excellent paintability

Direct paintability and the resulting cost savings for the customer are made possible by the phosphate-treated or passivated surfaces.





# corrender

## corrender

Hot-dip galvanized steel strip: A new perspective

corrender is the next evolutionary step in hot-dip metal-coated products. A powerful protective layer with numerous advantages is created through alloying small amounts of magnesium and aluminum in the zinc bath. The coating has numerous advantages in processing and corrosion protection.

### Excellent corrosion protection

The corrosion protection of corrender is significantly higher than that of conventionally galvanized steel strip. Because of the substantially improved protective properties of corrender, the metallic coating layer (zinc) thickness can be significantly reduced while maintaining the same level of corrosion protection.

### Excellent workability

corrender opens new potential for higher efficiency and thus reduces production costs. Excellent formability results in numerous advantages when compared to conventionally galvanized steel strip. These advantages can lead to significant increases in efficiency when making the conversion to corrender.

### Conservation of the environment

The use of sustainable products is becoming more important in light of increasing environmental protection measures and regulations. corrender reduces the metallic coating thickness while increasing the level of corrosion protection and making a valuable contribution to the conservation of natural resources.

colofer®

## colofer® corrender

On the substrate of the future

Reap the benefits of colofer® corrender in our organic-coated steel strips and take advantage of the innovative substrate: The advantages include optimized coating adhesion, improved corrosion protection and conservation of natural resources. Under certain conditions, the weight savings are substantial.

### Optimized corrosion protection

colofer® corrender is convincing in spite of its reduced metallic coating thickness as a result of minimized paint infiltration in scratches and in areas that remain wet. Optimized corrosion protection is guaranteed.

### Conserving valuable resources

Valuable resources are significantly conserved as a result of the reduced metallic coating layer in colofer® corrender.

### Up to 40-year guarantee period

With colofer® corrender, you benefit from longer guarantee periods than with classical colofer®. The guaranteed values found in the colofer® data sheets and Technical Terms of Delivery all apply to colofer® corrender.

colofer® corrender has already been certified by a number of reputable institutions:

- Component certificate issued by German Institute of Structural Engineering (Deutsches Institut für Bautechnik)
- Certificates of equivalence issued by MPA (materials testing agency) in Hannover
- Certified according to ÖNORM M 3126.
- Certified according to Stahl-Eisen-Werkstoffblatt 22 (SEW 022).





## Hot-rolled steel strip

### Wide range of products

Hot-rolled steel strip made by voestalpine is designed to meet every customer requirement. Tailored to the specific requirements of our customers, the product portfolio ranges from mild steels to ultra-high-strength steels for highest-strength applications. Hot-rolled steel strip is supplied in either pickled or non-pickled condition upon request. A number of alloying and rolling strategies make it possible for us to supply steels customized to your individual specifications. A wide range of case-hardening and heat-treatable steels round off our portfolio.

## Electro-galvanized steel strip

### Brilliant processing

Electro-galvanized steel strip made by voestalpine is characterized by the highest surface quality, excellent workability and optimum forming properties. Very good corrosion protection, best weldability and paintability and a wide range of steel grades make electro-galvanized steel strip especially interesting for building systems.



Information and product properties provided in this publication have the sole purpose of giving non-binding technical guidance and by no means replace individual expert advice from our sales and customer service team. Information and product properties provided in this brochure shall not be deemed guaranteed characteristics unless this has been agreed upon individually. Technical changes reserved, errors and misprints excepted. No part of this publication may be reprinted without explicit written permission by voestalpine Stahl GmbH.



colofer®

**The right product  
for every application**

colofer®

colofer® is a finish-coated steel strip with optimum surface and processing properties. A broad product mix provides solutions with regard to functionality and aesthetic aspects. colofer® combines highest product quality with tailored services and meets the highest requirements with respect to forming properties, corrosion protection, UV resistance and temperature stability. We also offer an automatic guarantee period of up to 35 years.

## Multi-functional coatings

**Solutions for a wide  
variety of demands**

Multi-functional coatings supplied by voestalpine cover a comprehensive range of high-quality surface systems for a broad spectrum of demands. In the building systems industry, the improved forming properties of the materials have no adverse influence on other desirable characteristics. Permanent corrosion protection can be provided in combination with excellent welding properties.



voestalpine Steel Division  
We lead the way,  
so our partners will be one step ahead.

# We talk solutions

That is why we will never be satisfied with excellent product quality alone.

Comprehensive services and unlimited dedication to the challenges of our customers are at the core of our philosophy.

Highly specialized and closely linked, the companies of the voestalpine Steel Division have one common goal: Providing our customers with optimized and individualized packages of benefits in the building systems industry.

## Always close to you

- Processing close to the customer at steel service centers in Austria, Poland, Romania and Italy
- Competent contacts directly on site: Sales organizations and offices in more than 20 countries

## Precisely tailored to your needs

- Precision cutting: High-quality slit strips and cut shapes tailored to your individual requirements
- Customized packaging
- Tailored logistics and express deliveries

## Development advantages

- In-house research and development center
- Networking with international research institutions and universities
- Technical consulting and support, including application issues

## Technically more advanced. Successful together. voestalpine Steel Division – the partner you can trust.

High-quality materials are the basis for our products. We strive to be the best partner for our customers and want to provide them with the best-possible solutions. We focus our expertise on two aspects:

The personal aspect, with dedicated and highly competent employees

The technical aspect, with high-quality methods, products and services

The companies in the voestalpine Steel Division and their employees understand partnership to be the following:

- Understanding for their customers' business
- Expertise and reliability
- Responsibility for satisfactory project completion
- Partnerships based on trust

Many years of successful partnerships with our customers prove our point.

### **voestalpine Steel Division**

voestalpine-Straße 3  
4020 Linz, Austria  
T. +43/50304/15-8048  
construction@voestalpine.com  
www.voestalpine.com/steel

**voestalpine**

ONE STEP AHEAD.