



ROOFING

System Solutions for Roofs

Foreword

If the best material curtails creativity, what good is it? If the best idea cannot be realized, what good is it? Materials that foster creativity and lend form to ideas are required for individual solutions, as are consulting services that take technical perfection, structural physics and aesthetics into consideration.

RHEINZINK offers all of the above. Not only does the name stand for unique creative material to clad roofs and facades, but also for exemplary service to implement your ideas – regardless of the size of your project – big or small. We offer solutions that are as unique as your project. A comprehensive range of RHEINZINK roofing, facade, and our solar system product, along with diverse installation techniques, make it easy to find a perfect solution for every design.

RHEINZINK is extremely malleable; it is compatible with every architectural environment and its aesthetic is timeless. Furthermore, requirements for sustainable building using natural material are met without difficulty. RHEINZINK is absolutely maintenance and service free. Its lifetime comprises several generations and that, in and of itself, sets standards; its ecological balance is exemplary.

The examples in this brochure illustrate the design potential of RHEINZINK, along with various options available to you by using this ecological material.

Frimley, December 2012



Schwielowsee Resort, Werder, Germany



„Il sogno di Ivana“, Turin, Italy



Česká pojišťovna Pankrác – Administrative Building, Prague, Czech Republic

RHEINZINK-Double Standing Seam

The double standing seam is a further development of the original hollow folded joint or single standing seam. This reliable system has been referenced in technical literature since 1899 and is the top choice for roof pitches from 3° to 25°. Here, the name “double standing seam” characterises one of the conventional types of longitudinal joints above the water level. A fine-lined seam height of 25 mm is rainproof without any additional measures. The double standing seam, manufactured with pre-profiled panels, has gained international recognition. Seams are folded and closed manually or with a seaming machine. Custom shapes such as convex and concave curves and conical panels are produced without difficulty. Thanks to a multitude of detail variations, the double standing seam emphasizes both traditional and modern architectural design.

- Easy to install and suitable for all roof types
- Use on low pitched roofing
- Sheet lengths up to 16 m
- Durable, maintenance-free and environmentally friendly roofing material

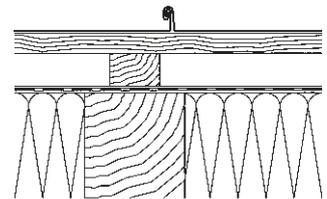
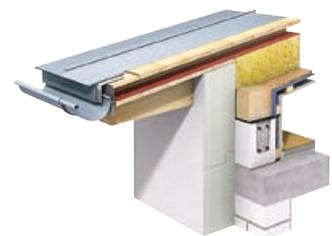


Fig. Cover page: Dorothy House Hospice, Bradford on Avon, United Kingdom



Private Residence, Stavoren, Netherlands



Private Residence Montaña del Socorro, Tafira Baja, Spain

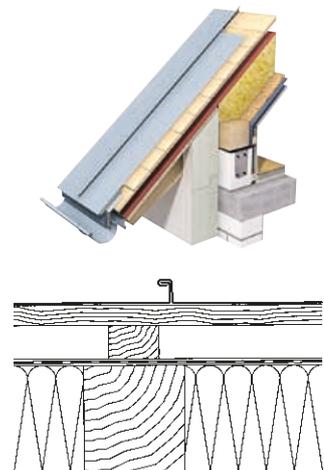


Private Residence Möllmann, Bielefeld, Germany

RHEINZINK-Angled Standing Seam

Within conventional sheet metal techniques, the angled standing seam is a relatively new development; it has only been referenced in technical literature since the beginning of the 20th Century. Closing the seam of a pre-profiled panel is very easy compared with the double standing seam. The angled standing seam is completed simply by folding in one leg. It is particularly suitable for visible design areas on metal roofs where the pitch is greater than 25°, as well as for rounded parapets, attics or mansard roofs – in a conventional vertical, diagonal or horizontal application. As the angled standing seam looks wider than the double standing seam, it lends a vibrant, distinctive structure to large surface projects.

- Easy to install and suitable for all roof types
- Greater strength
- Can be used for steep-sloped roofing
- Sheet lengths up to 16 m
- Durable, maintenance-free and environmentally friendly roofing material





Hôtel du Louvre, Paris, France



Event Hall, Prague, Czech Republic

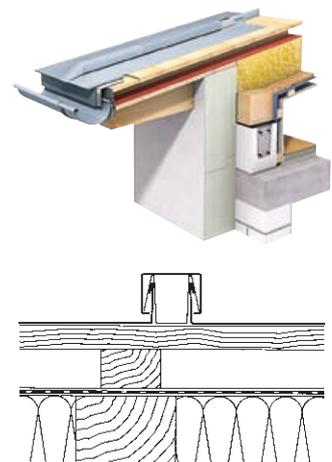


University of Fine Arts, Dresden, Germany

RHEINZINK-Click Roll Cap

The roll cap system with battens is one of the more traditional of today's prevailing sheet metal work techniques. The name "Click Roll Cap System" stands for a type of longitudinal joint, whereby the RHEINZINK-Click Roll Cap Fastener, made of galvanized steel, is used as a fastener between the panels. Both fastening alternatives are covered with a roll cap. Efficient system installation is telling. Prefabricated adjustable profiles support the design quality and sophisticated look. The dominant longitudinal joints typical of the click roll cap system create a strong structural effect; the interplay of light and shadow is striking and charming. This lends itself to interesting design possibilities for both roofs and large curtain walls. An even greater wealth of variations exists when the roll cap system is combined with double standing seam techniques.

- Stronger line definition with roll cap joints
- Use on flat and steep-sloped roofs
- Cost effective assembly through high level of prefabrication
- Strip lengths up to 20 m
- Durable, maintenance-free and environmentally friendly roofing material





Private Residence, Parisian Region, France



Private Residence, Neudörfel, Austria

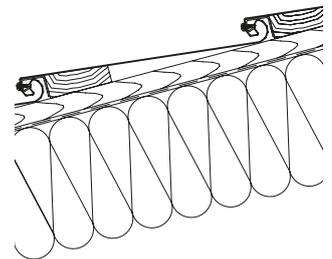
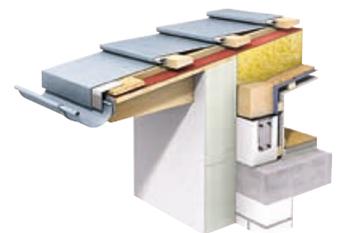


Mortuary, Stainz, Austria

QUICK STEP – The RHEINZINK-Stepped Roof

Architecture is always on the look-out for design variations. With this in mind, RHEINZINK offers a prefabricated installation system, which offers extensive design options that are easy to handle or manage: QUICK STEP – The RHEINZINK-Stepped Roof. A patented technology, this system is completely new and offers a multitude of cladding alternatives to conventional roofing. QUICK STEP is suitable for many roof shapes with inclines from 10° to 75°. Prefabricated plug-in components made of RHEINZINK-prePATINA bluegrey or prePATINA graphite-grey, guarantee smooth and quick installation. The step-shaped structure of the system provides a striking, elegant format for the roof surface; it can be integrated harmoniously into every environment.

- Horizontal layout of roof
- Use on flat and steep-sloped roofs
- Cost effective assembly through high level of prefabrication
- Durable, maintenance-free and environmentally friendly roofing material





Hotel Kempinski, Hohe Tatra, Slovak Republic



Elisabeth Heilbad, Miskolc, Hungary



Kaplan Residence, Illinois, USA

RHEINZINK-Tiles

Tiles are becoming more and more popular for roofing as well. Small RHEINZINK-Tiles (square and diamond-shaped) provide secure and aesthetically pleasing solutions, even for geometrically complicated building designs. Dormer, chimney head and roof edge cladding counts as part of conventional tile utilization. RHEINZINK-Flat-Lock Tiles are most effective for large roof areas and curtain walls. These represent a further development of the diamond-shaped and square tiles; they are impressive, not only because of their aesthetic appeal, but because of the design benefits. Using different sizes of tiles opens up a multitude of facade design possibilities. The bright rolled version provides more design options, because the natural weathering of the shiny material will vary from tile to tile, which can be quite striking.

- Distinct roof covering with a selection of diamond tile sizes
- High degree of design freedom, even on unconventional roof forms
- Use on flat and steep-sloped roofs
- Cost effective assembly through high level of prefabrication
- Durable, maintenance-free and environmentally friendly roofing material

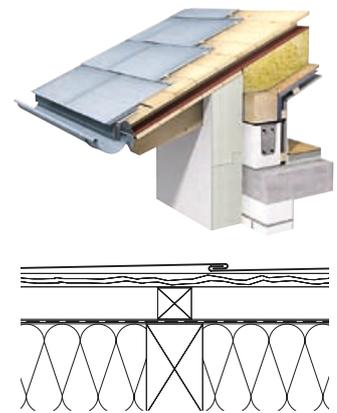
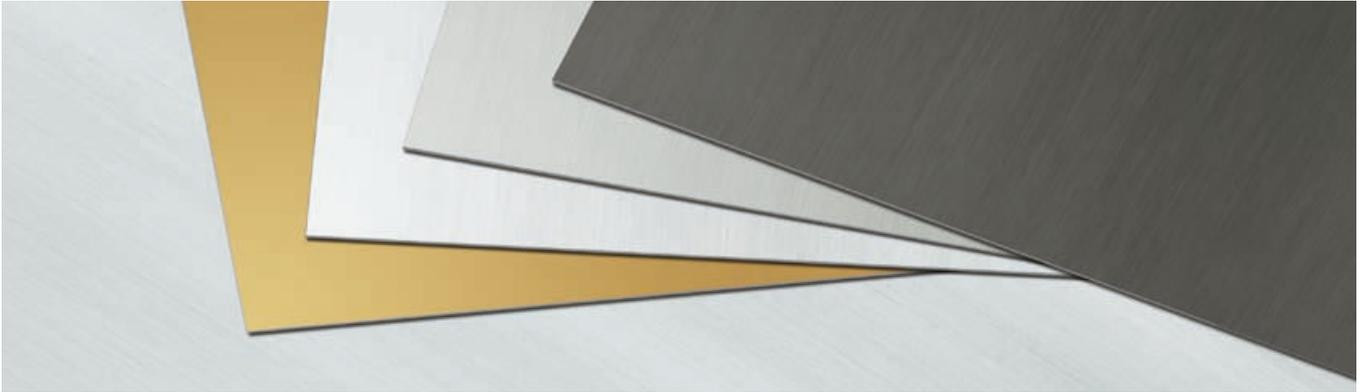


Fig. Right: Domkuppel San Pietro, Gattinara, Italy





The Material with a Future.

In the context of the discussion on sustainable construction the environmental compatibility of building products is given great significance and accordingly influences the making of decisions by building owners and planners when selecting materials. In this focus, in addition to a long life, an important consideration is the expenditure of energy during the manufacture of the material, the recycling rate and the energy saving to be made as a result of the high recycling rate.

In the case of RHEINZINK the environmental compatibility traditionally has a high value. Ecological yardsticks are already set during the extraction and processing of the raw material: The consumption of energy is extremely low. The most modern of production facilities reduce emissions to a minimum. RHEINZINK is a 100% recyclable and sets a yardstick with a life of many decades in use. Its use as a roof covering, facade cladding and roof drainage alone is accorded a high value: Since the consump-

tion of energy in the recycling amounts to only around 5% of the primary energy content and today in the market for used metals a value of up to 60% of the raw material price for high-purity zinc is achieved, the decision to use RHEINZINK is also of great benefit to future generations. Thanks to the high recycling rate of over 95% a further reduction of the energy requirement is achieved. In the RHEINZINK manufacturing process production scrap is passed to the melting process without further pre-handling.

In addition to exemplary ecological characteristics RHEINZINK is convincing in terms of its aesthetic appearance. It can be delivered in various product lines and versions.



RHEINZINK PATINA is the classic line. The bright rolled version (prePATINA bright rolled) first takes the form of a natural patina in the course of time – due to

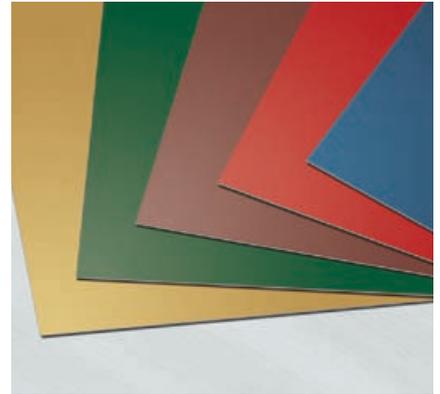
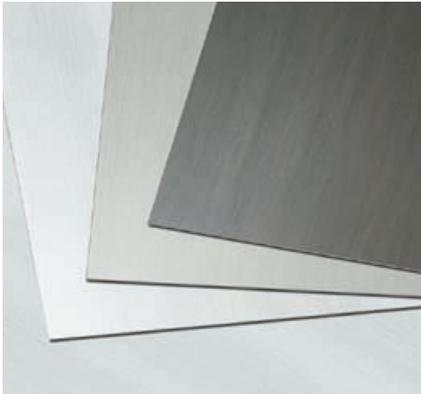
atmospheric influences. With the pre-weathered variants prePATINA blue-grey and graphite-grey, the natural material has on the first day a classical, typical zinc blue-grey or graphite-grey appearance. On the other hand the pre-weathered variants of this product line change again during the course of the year, the blue-grey and graphite-grey appearance of the RHEINZINK-PROTECT LINE is protected from ageing in the longer term by an invisible coating.

With the RHEINZINK-COLOR LINE there is now also a coloured RHEINZINK version available. This opens up other possibilities in the design of roof, facade and architectural details, since also the COLOR LINE has the outstanding RHEINZINK processing characteristics. Currently it is available for delivery in the colours RHEINZINK-blue, RHEINZINK-tile-red, RHEINZINK-moss-green, RHEINZINK-pearl-gold and RHEINZINK-nut-brown.



- 1 QUALITY ZINC Certificate
- 2 TÜV Certificate
ISO 9001:2008,
ISO 14001:2004 and
ISO 50001:2011
- 3 IGEF Certificate
- 4 IBU Environmental Declaration

Please see www.rheinzink.com for many other exemplary solutions for working creatively with RHEINZINK. We would also be pleased to send you detailed information on the diverse RHEINZINK-Program!



Diversity instead of Monotony –
The RHEINZINK-Product Lines



PATINA LINE
Living Material

Surface Finishes:

prePATINA bright rolled
prePATINA blue-grey
prePATINA graphite-grey

Delivered forms:

Sheet and strip, roof and facade systems, roof drainage products. Profiles are finished with service edging on request. Backside coating if required.

Convincing arguments:

- Natural material
- Natural patina formation
- Tried and tested processing characteristics
- For roof, facade, roof drainage and architectural details
- Long life and maintenance-free
- 100% recyclable



PROTECT LINE
Pure and durable

Surface Finishes:

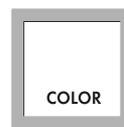
PROTECT blue-grey
PROTECT graphite-grey

Delivered forms:

Sheet and strip. Profiles are manufactured with service edging on request.

Convincing arguments:

- Natural material
- Durable surface protection
- thanks to the transparent coating
- Tried and tested processing characteristics
- For roof, facade and architectural details
- Long life and maintenance-free
- 100% recyclable



COLOR LINE
Unlimited Finishes

Finishes (according to colour catalogue):

RHEINZINK-blue
RHEINZINK-tile-red
RHEINZINK-moss-green
RHEINZINK-pearl-gold
RHEINZINK-nut-brown

Delivered Forms:

Sheet and strip. Pre-formed profiles and flashings are available on request.

Convincing arguments:

- Natural material
- RHEINZINK material quality with coloured coating
- Unlimited design variations
- Proven processing characteristics
- For roof, facade and architectural details
- Long life
- 100% recyclable



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