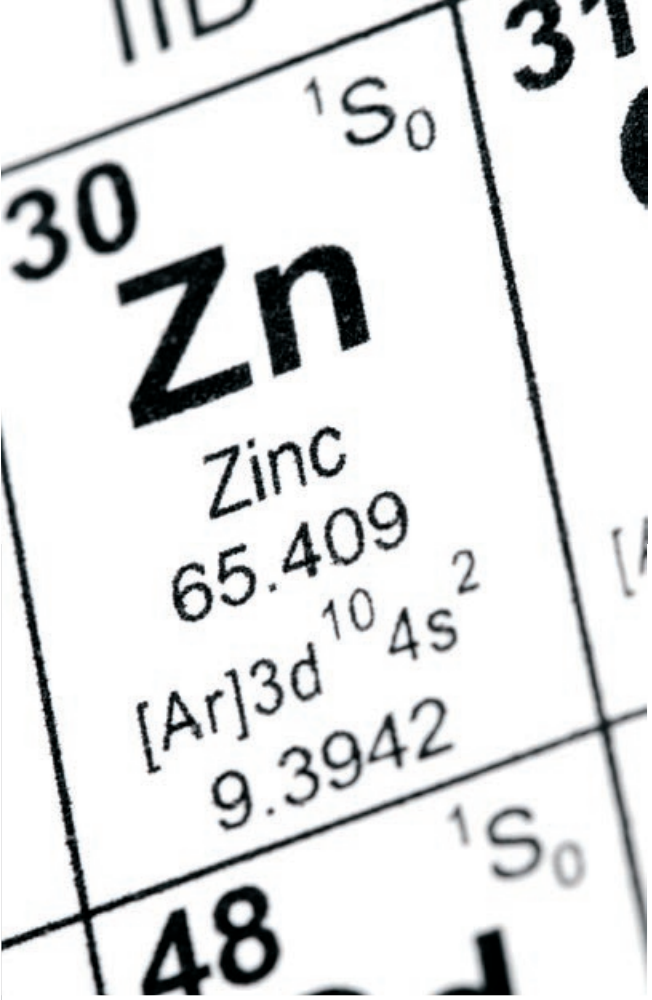


From zinc to RHEINZINK®.

Turning Raw Materials into a Valuable Resource.

RHEINZINK

WE HAVE TO DO THE BEST WE CAN. THAT IS OUR SACRED RESPONSIBILITY AS HUMANS.

Albert Einstein, German physicist, 1879–1955

2008

SUSTAINABILITY DOCUMENTATION

WE ARE DOING THE BEST WE CAN

Businesses have a very special influence on man and nature, which is why they also have a very special responsibility towards this generation and those to come. We have been conscious of this fact for more than 40 years: the concept of sustainability had already shaped our thoughts and actions long before it entered the public conscience.

The result of this sustainable corporate philosophy is visible in every area. RHEINZINK® titanium zinc is natural and 100% recyclable. Our production is economical, employs the latest engineering techniques and by far exceeds the stringent German health and environment standards required by law. On the social side of things, we strive to ensure fair wages and high employee retention as well as close, longstanding partnerships with architects, craftsman, retailers and suppliers who are conscious of their responsibility, too. This is what we want to convey in this brochure.

With this in mind, we hope you enjoy the read.

Dr.-Ing. Michael Knepper
Member of the Management Board

Frank Neumann
Director Application Engineering / Marketing

Zinc is discovered.
The oldest brass objects were found in Babylonia and Assyria and date from 3000 BC. The first production of metallic zinc is believed to have taken place in India and China around 1200 A. D. Zinc was first classified as a metal, the eighth at that time, in 1374 by the Hindus.
In Europe, Zinc was first recognised as a new metal by the physician and natural scientist Paracelsus in the 16th century.

A NATURAL ELEMENT

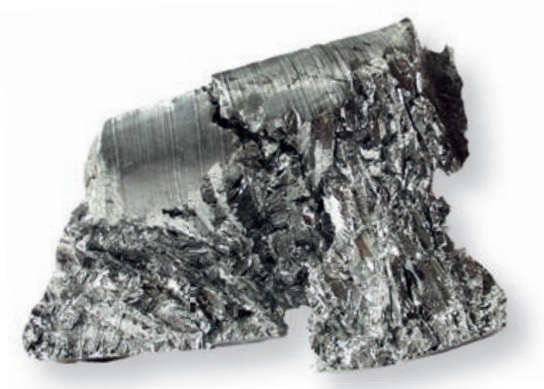
Zinc is by far the most important component of RHEINZINK® titanium zinc and therefore our favourite element. The amount of this chemical element found in the earth's crust is between 10 and 300 mg/kg, 70 mg/kg on average. Minute amounts can also be found in the air and water. In the order of abundance, zinc is the 24th element, which makes it a fundamental part of nature.

Element of life.
Zinc is one of the most essential trace elements and is indispensable for all living organisms on earth. It is directly involved in the process of cell division and has the largest impact on our immune system of all vitamins and minerals. Important sources of zinc are meat and poultry, fish and seafood as well as organic baked goods and dairy products.

RAW MATERIAL ZINC ORE

Naturally, zinc is encountered in compounds with oxygen or sulphur. The most important zinc-containing mineral is sphalerite. It is often found in association with galena, pyrite, chalcopyrite and other minerals. Through influence of the weather, sphalerite turns into carbonous or siliceous zinc minerals, sometimes called oxidic zinc ores.

Zinc ores are found in many geological and geographical locations around the world and are mined under ground. The largest amounts of zinc are currently mined in Australia, Canada and Peru. Other important zinc-producing countries are China, Japan, Mexico, North Korea, the USA, the Democratic Republic of the Congo and some European countries. The worldwide zinc deposits available with the current mining technology are estimated at 3,400 million tons – enough for the next 700 years based on current production volumes. And this figure does not yet take into account the amount of recyclable material.



Material

REGIONAL SUPPLIERS

For our RHEINZINK® titanium zinc, we obtain the pure zinc, as defined by the EN 1179 standard, from regional zinc producers. The raw materials for this come as bulk fine-grained zinc concentrate – zinc ores processed in the ore mine – chiefly from Canada, Australia as well as Central and South America. Current zinc producing processes are zinc electrolysis, the Imperial Smelting process and the New Jersey Zinc distillation. Apart from ore processing, zinc production relies more and more on recycling material.

The result and the raw material for our RHEINZINK® titanium zinc is Special High Grade zinc (SHG), which has a purity of 99.995%. Apart from the high quality provided, our partnership with regional suppliers has another economic and ecological advantage: logistics. Because shorter supply routes mean considerable reductions in energy consumption and pollution.

- *The all-rounder metal.*
- *About half of the zinc produced is used to make anti-corrosive steel. Zinc is a low-cost and eco-friendly means to extend the life span of steel constructions (e.g., buildings, cars). Other important applications are alloy production, the chemical industry, civil engineering, vehicle equipment, household articles, toys and tools, rubber products, fertiliser, pet food as well as medication and cosmetics.*

Little primary energy.
Because of zinc's low melting point and the use of state-of-the-art manufacturing processes, RHEINZINK® titanium zinc is a construction metal with relatively little primary energy use and thus low CO_2 emission. The impact category indicators (greenhouse effect, ozone depletion, acidification, eutrophication, ground level ozone production) are accordingly low.

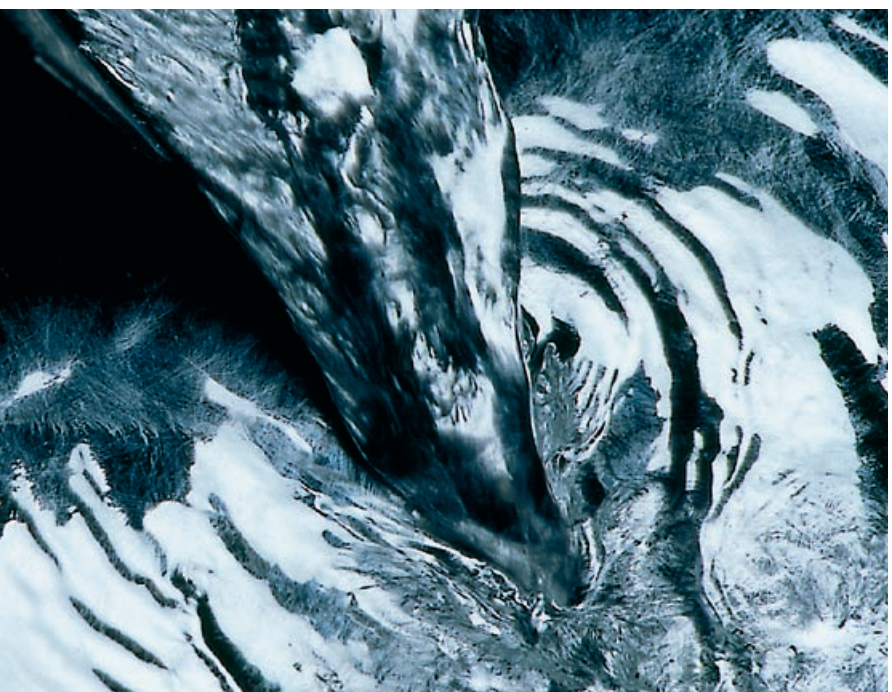
Material

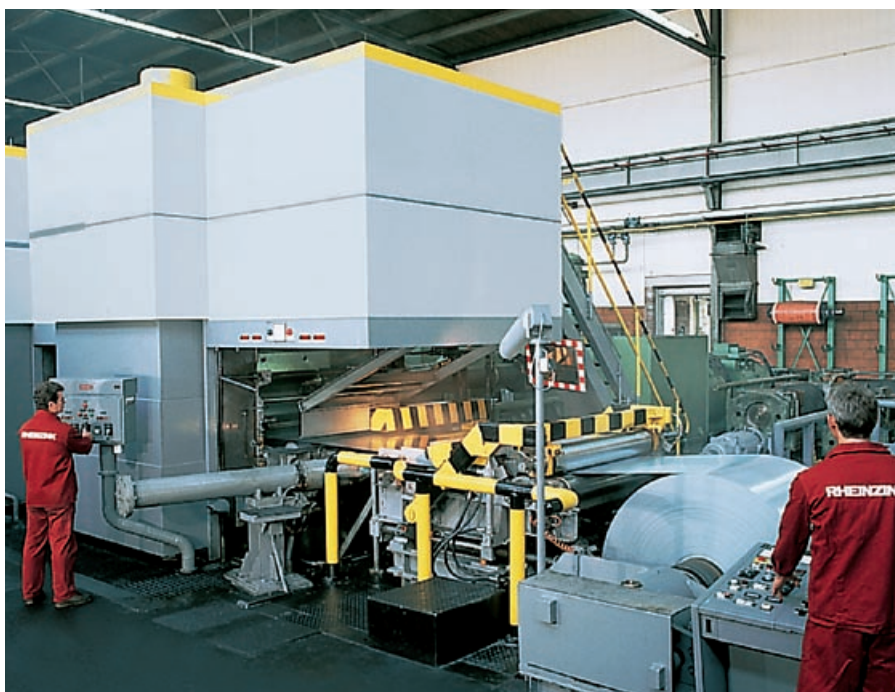
THE IDEAL MIX

RHEINZINK® titanium zinc is an alloy. It is composed of pure zinc as defined by the EN 1179 standard and minute amounts of titanium and copper. Our titanium is delivered from different countries around the globe, and our copper as recycled scrap material. These additives are important for the colour of the patina and the material's properties such as the high ductility and creep rupture strength, a raised recrystallisation threshold and a lowered coefficient of thermal expansion.

A UNIQUE PROCESS

In a continuous production process, the RHEINZINK® alloy is worked into strips of different thicknesses on a patented wide-strip casting and rolling mill: a unique process developed chiefly by RHEINZINK engineers. Continual monitoring of the individual production phases, of all mechanical and technical properties and dimension tolerances of the material ensure a consistently high quality. This lets us not only comply with the European DIN EN 988 standard for titanium zinc, but also meet the high standards of the QUALITY ZINC certification mark awarded by the German technical service provider TÜV.





Eco-friendly in every respect. Our production has no negative impact on water, soil or air. Furthermore, all transport aids like pallets and packaging material like foil, paper and cardboard are reusable or recyclable.

PRE-ALLOYING

At a temperature of 760 °C in the crucible induction furnace, pure zinc, titanium and copper are made into pre-alloyed blocks, which contain multiples of the final rolling alloy's titanium and copper amounts. This has energy-related reasons and also leads to improved quality.

MELTING

In channel induction furnaces, the pre-alloyed blocks and the pure zinc are melted at temperatures of up to 550 °C, are optimally blended through the use of induction currents and are finally cast.

CASTING

The resulting liquid alloy is next fed into the casting machine and cooled so far below its melting point by a closed water circuit that it forms a solid casting strand. By raising and lowering the cast strand in the so-called looping towers, speed differences between the casting machine and the down-stream rolling mills are compensated. This is an essential process because the speed of the casting process and the down-stream rolling and coiling processes need to be synchronised. This is indispensable for ensuring a consistent and faultless material quality.

ROLLING

Several rolling mills with one pair of rolls each apply the appropriate pressure to reduce the cast strand's thickness by up to 50%, while the material is cooled and lubricated by a special, bio-degradable roll oil emulsion. This careful fine-tuning of pressure and cooling is responsible for the metallurgic properties of the RHEINZINK® alloy. A notable achievement of this technique is ensuring identical production conditions every day. This, in turn, makes for very little quality fluctuation.

Health and safety at work.
Throughout the entire manufacturing process, no health protection measures exceeding the general health and safety measures required by law are necessary. Furthermore, noise levels are far below the legally required standards.

Investing in the future
With its € 30 million volume, the construction of the new pre-weathering plant in 2006 was the largest single investment in the history of the RHEINZINK company. The plant is 128 m long, 22 m high, boasts low CO_2 emission and energy consumption and is one of the most advanced plants in the world.

COILING

After passing through the last rolling mill, the now completely rolled RHEINZINK® strips are coiled into 20-ton coils. Because in the continuous production process there can be no stops, a sort of „flying splice" is employed. This technique, too, is a RHEINZINK development and unique in the world. Still hot, the 20-ton coils are then let cool down to room temperature.

STRETCHING AND CUTTING

It is technologically inevitable that the rolling process creates tension in the rolled strips that is unfavourable for later processing. With our slitter with state-of-the-art stretching, bending and planing capabilities, however, we are able to eliminate this tension. The resulting titanium zinc is flat and has straight edges, properties that make the material perfect for designing roofs and facades.

Protective patina
The blue-grey patina is responsible for RHEINZINK®'s high corrosion resistance. The patina is self-cleaning through natural aging and contact with rainwater and requires no maintenance throughout its lifecycle. Furthermore, the dense, firmly adhering and water-insoluble covering layer makes the titanium zinc UV-resistant, undecaying and resistant to film rust and most chemicals used in construction.

RHEINZINK®-SURFACES

The RHEINZINK® produced by the above processes has the surface quality „bright rolled". Within anywhere between a few months and several years, depending on climate conditions and the part of the building, a blue-grey protective layer forms on the RHEINZINK®-bright rolled: the patina. Because this is a natural process that does not progress evenly in all places, the surfaces can look somewhat mottled during the transition phase. For architects and builders who find this process undesirable, we have developed two preweathered surface qualities: RHEINZINK®-„preweathered pro blue-grey" and RHEINZINK®-„preweathered pro graphite-grey". The protective layer's colouring of these versions is factory-made. This does not impair the surface's natural ability to develop the patina protecting the material over its entire lifecycle.

In the preweathering process, the bright-rolled strips are first cleaned, then pickled and finally rinsed. This is a continuous process in an enclosed pickling machine, which meets the highest environmental requirements, conforms to the latest German environmental legislation and employs processes that far exceed current environmental standards.

Solutio

EXTENSIVE PRODUCT RANGE

RHEINZINK® products are not only appealing from an architectural point of view. They are also an asset in construction: they make a valuable contribution to preserving the building fabric. Our product range includes everything from small custom-made coils, strips, sheets and plates up to 6 m long all the way to complete roof, facade, roof drainage and solar panel systems.

ROOFS AND FACADES

Intelligent and appealing roof and facade-cladding systems are a key part of our product range. These systems are made up of matching elements, a fact that considerably shortens installation times. A good example for this is QUICK STEP®. This innovative RHEINZINK Stepped Roof provides an attractive segmentation of the roof surface and makes for easy installation.

GUTTERS AND PIPES

Its quality and ecological properties as well as its functionality, compatibility and dimensional accuracy have made the RHEINZINK® roof drainage product range Europe's best-selling system since the 1980s. It is a range of approximately 500 perfectly complementary prefabricated components like half-round and box-shaped gutters, rainwater downpipes, numerous special shapes in common dimensions and the fittings to go with them.

ARCHITECTURAL DETAILS

Whether you are building a new house or renovating and old one, small details are enough to set interesting contrasts to other materials. By using titanium zinc elements for dormers, roof edges, verges, chimneys or walls, you can give the most diverse architectural concepts striking emphasis. Even for these smaller applications, RHEINZINK® provides perfect protection against weather influences.

PHOTOVOLTAIC AND SOLAR TECHNOLOGY

Do you want to harness solar energy to generate electrical energy or heat? We have the technology and the perfect systems for both. RHEINZINK®-Solar PV, QUICK STEP®-Solar PV and QUICK STEP®-SolarThermie: all these products combine eco-friendly solar technology and state-of-the-art roof architecture in a perfect symbiosis. Combining this technology with a heat pump or with geothermal energy further improves the energy efficiency of the building.

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- *Ecologically seepage of rainwater.*
- *Zinc has been proved to be ecologically safe. Zinc roof surfaces or zinc roof drainage systems add no toxic or hazardous substances to the seepage.*

Absolutely safe.
RHEINZINK® can be used on roofs and facades as a natural component of the external lightning protection system. This means that architecturally awkward lightning protection including lightning conductors and roof circuits are now a thing of the past. In addition, RHEINZINK® is non-combustible (class A1 building material) and can offer valuable protection against radiating heat and flying sparks.

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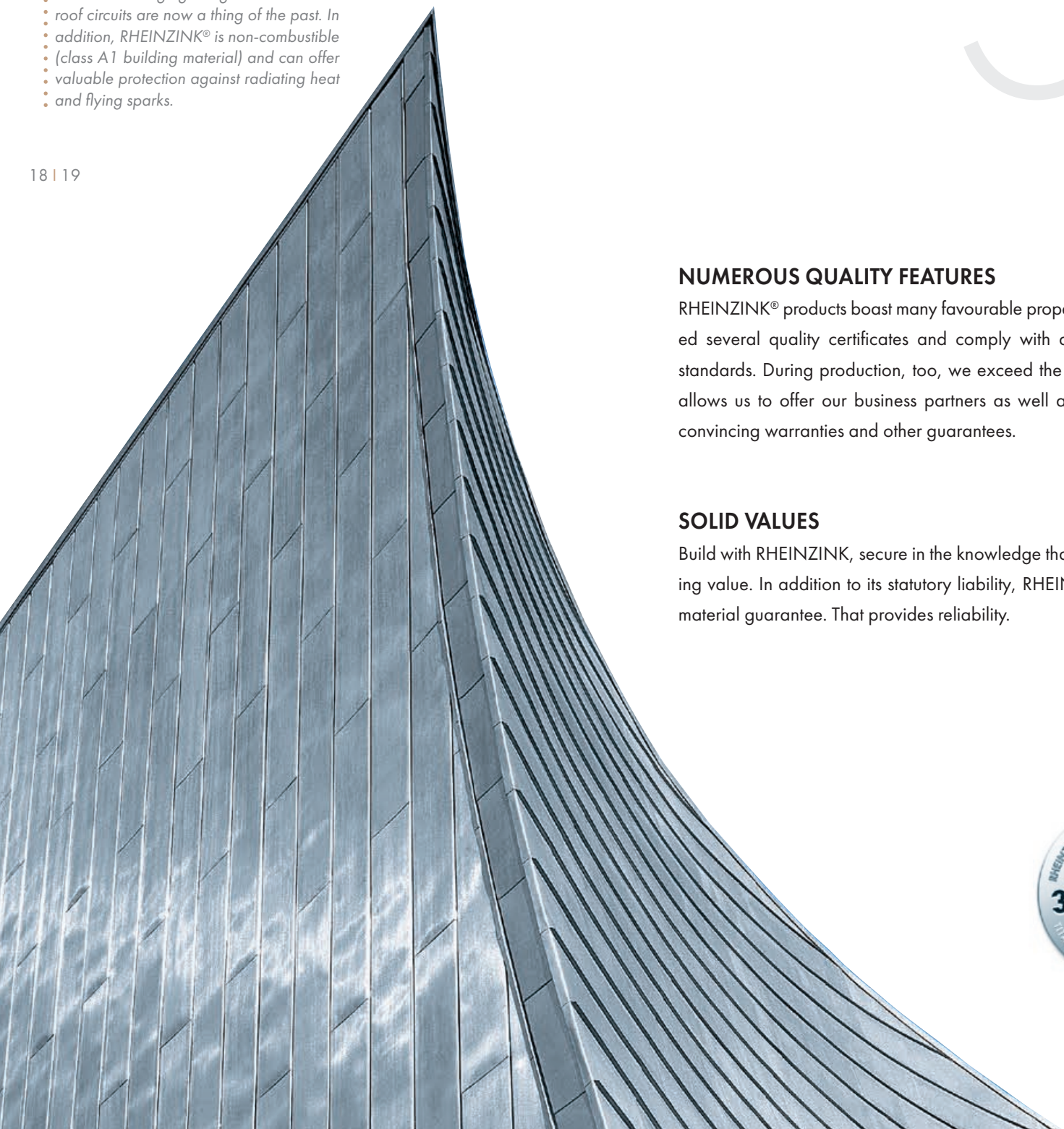

NUMEROUS QUALITY FEATURES

RHEINZINK® products boast many favourable properties, have been awarded several quality certificates and comply with all relevant current DIN standards. During production, too, we exceed the legal requirements. This allows us to offer our business partners as well as our private customers convincing warranties and other guarantees.

SOLID VALUES

Build with RHEINZINK, secure in the knowledge that you are acquiring lasting value. In addition to its statutory liability, RHEINZINK offers a 30 year material guarantee. That provides reliability.

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QUALITY ZINC CERTIFICATION MARK

By awarding us the QUALITY ZINC certification mark, the TÜV Rheinland Group confirms the exceptional care that we put into manufacturing and processing our RHEINZINK® material. The TÜV mark certifies a consistently high product quality. At the same time, it documents our giving warranties that exceed the legal requirements and certifies the material's compliance with the ISO 14025 Type III and ISO 14001:2004 environmental standards as well as a quality management in accordance with ISO 9001:2000.

IGEF QUALITY SEAL

Measurements performed by the International Society for Electrosmog Research (IGEF) show that earthed RHEINZINK® screens off 99.92 % of the radiation from low-frequency electric alternating fields and 99.93 % of high frequency electro-magnetic radiation. Biological measurements have also shown a harmonising effect on the cardio-vascular and nervous systems as well as an increase in relaxation of the human organism. Based on these results, RHEINZINK® was awarded the IGEF quality seal „Tested and recommended by the IGEF".

ECO ENVIRONMENTAL DECLARATION

The experts at the German Institute Construction and Environment (Institut Bauen und Umwelt e.V.) have declared all RHEINZINK® products environmentally safe building products in accordance with ISO 14025 Type III. This declaration underlines the quality of our products – especially in ecological terms – as well as our commitment to sustainable construction.

QUALITY GUARANTEE

Our company guarantees that all RHEINZINK® plates, strips, roof and facade cladding, roof drainage systems and solar profiles without exception consist of fault-free, standardised material and meet all requirements specified in the relevant European technical regulations.

WARRANTY

A warranty agreement exists between RHEINZINK and the Central Association for Sanitation, Heating and Air Conditioning (ZVSHK) as well as the Central Association of German Roofers (ZVDH), which covers RHEINZINK® roof and facade cladding as well as plumbing products. In case of a complaint, these agreements give the Skilled Trade in question a direct warranty claim against RHEINZINK GmbH & Co. KG.

New

A good example for sustainable architecture with a sophisticated design is Ulrich Reh's solar house in the German town of Wetzlar. This innovative detached house with a metal-covered solar roof combines sustainable construction with a highly sophisticated design. The combination of RHEINZINK® titanium zinc and SolarThermie used here combines the advantages of long-lived roof cladding with the efficient harnessing of solar and environmental energy in an exemplary manner. Built in 2005, the house was designed in such a way that the latest solar technology and tried-and-tested metal roofing were used as exceptionally economical components. The owner – a self-employed master craftsman and proprietor of a company specialising in plumbing, sanitation and heating – installed the metal roof, solar and building technology himself.

UTILISING THE ROOF SURFACES

Pioneering construction and building operation today means taking a holistic look at buildings across their entire lifecycles. In Wetzlar, this has been done to perfection. The house's location on a pronounced south-facing slope facilitated the ideal orientation of the building to use the roof surfaces for solar purposes. For the gable roof with a pitch of approx. 30°, QUICK STEP®, The RHEINZINK® Stepped Roof, was used in the surface type „preweathered pro blue-grey".

On the north side, two double garages were roofed using the angled standing seam technique. The circumferential parapet copings were also done using the angled standing seam technique. For the roof drainage system and fittings, Mr. Reh chose the „preweathered pro blue-grey" type. So all components matched not only technically but visually as well. The concept for this house was developed by Ulrich Reh in collaboration with the RHEINZINK application and product development experts.

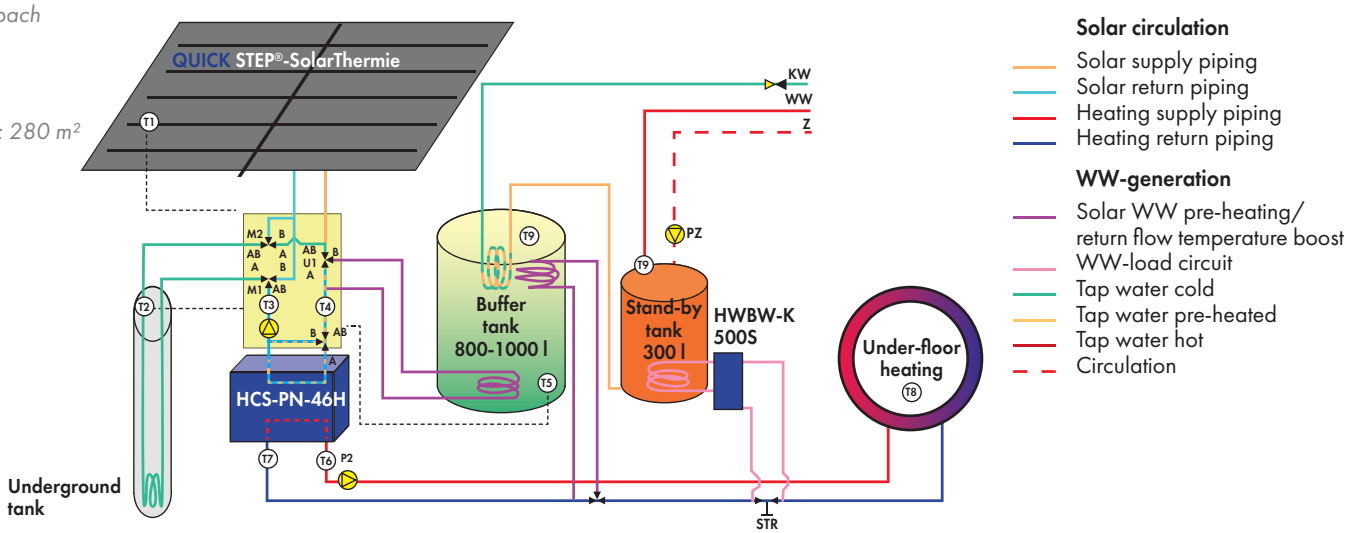
AN ECONOMICAL COMBINATION

The Reh family has shown that renewable energy technology like the heat pump technology and the solar absorber technology of QUICK STEP®-SolarThermie can be combined to complement each other perfectly. Also, the domestic water tank was built with continuous flow pre-heating. The special feature of this roofing system: it creates an appealing, high-quality architecture and generates energy as an added bonus. Or to put it the other way around: the energy source is also a design feature.

There is no interference in the buildings' architecture from stilted or externally attached collectors. With this concept, QUICK STEP®-SolarThermie allows for exceptionally economical heating and hot water generation. The total heating cost for this 3014 square foot house averages at approx. € 40 per month.

houses

The project: construction of a solar house
for 4 people in Wetzlar-Blasbach
Year of construction: 2005
Owners: Mr. and Mrs. Reh
Architect: Hans-Ulrich Keul
Heated residential floor area: 280 m²



Solar circulation
- Solar supply piping
- Solar return piping
- Heating supply piping
- Heating return piping

WW-generation
- Solar WW pre-heating/ return flow temperature boost
- WW-load circuit
- Tap water cold
- Tap water pre-heated
- Tap water hot
- Circulation

The objective for the new house was not only an appealing architecture that fits into the surroundings but also an innovative, sustainable energy concept that utilises renewable energy sources and operates as economically and uses as little energy as possible. Because of the house's prominent location, we took special care to design the solar architecture as unobtrusive and invisible as possible. We achieved this by using the QUICK STEP® SolarThermie preweathered metal stepped roof cladding. This energy concept, in combination with the heat pump, the underground tank as buffer and hot water reservoir with solar hot water supply, has proved to be an economic success after only three heating seasons. Hans-Ulrich Keul, architect.

SOPHISTICATED CONSTRUCTION

QUICK STEP® – The RHEINZINK Stepped Roof is a prefabricated, standardised roofing system. Roofers benefit especially from the easy and safe installation thanks to the high degree of prefabrication and the perfectly matching system components. These are QUICK STEP® basic profiles, a matching fixing system comprising system fixers and system battening as well as rainwater-conducting joint profiles for connecting the basic profiles at the end laps.

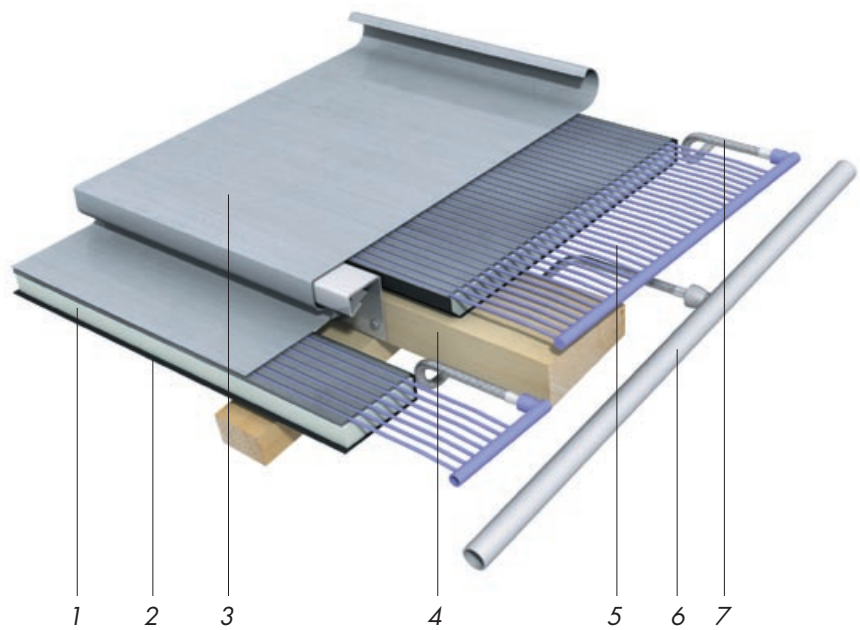
Matching rain-proof connection frames were used for roof penetrations like chimney heads. Matching system components were used for eaves, ridges, verges and valleys. The QUICK STEP® profiles were installed from ridge to eave by pressing and snapping in. Additions to single panels at a later date are possible and easily made.

The QUICK STEP®-SolarThermie panel is one of the most economical forms of combining the advantages of an innovative metal roof with the utilisation of solar and geothermal energy. The Wetzlar solar house exemplifies this perfectly by combining QUICK STEP® SolarThermie and a heat pump for heating and hot water generation.

ACCURACY IN EVERY DETAIL

All roofing components match perfectly. Compliance with important structural and safety requirements like back-ventilation, expandable profiles and wind suction protection is guaranteed. The elements were prefabricated according to precise measurements and a detailed bill of material, which enabled us to carry out the construction work with the utmost precision and speed.

The result is quite impressive. Custom-tailored to suit the building's individual needs, the „invisible" solar collectors are very efficient in heat generation. Based on Ulrich Reh's experience, the system delivers excellent results, is very economical and highly effective.



1 Thermal insulation
2 Protective cassettes, underside
3 RHEINZINK®-surface
4 System batten, system fastener
5 Fluid carriers
6 Collector tube with plug-in connector
7 Flexible metal hose (stainless steel)

Reno

The administration of the Gewobau housing association in Essen, Germany, is situated in a four-storey building that was originally designed as a block of flats. But the architects had already envisaged the possibility of a different use at a later date and designed the supports wide enough so that the building could easily be transformed into an administrative building. And that is exactly what happened. The conversion process saw the storeys progressively turn into administrative units. Because the Gewobau takes a positive view on renewable energy sources, they decided to install an integrated RHEINZINK solar energy system into the roof of the additional storey that was to be built on top of their administrative building.

ADDITIONAL SPACE GAINED

Gewobau desperately needed more meeting and conference rooms. The urban planning circumstances, however, would not allow an annexe, and the current attic storey was not big enough. So the decision was made to build an additional storey and at the same time raise the 3rd-floor ceilings.

The draft submitted by the Essen planning office Schulschenk saw a light-suffused steel-and-glass penthouse level. As part of the conversion, the gable roof and the attic storey ceiling were removed. The 3rd-floor ceiling was raised by approx. 1m and covered with a new reinforced concrete ceiling. The new storey was covered with an elongated, asymmetrical gable roof and, for construction and usage reasons, was installed with a height difference of 0.50 m. This created a central gable roof approx. 28 m long flanked on either side by lean-to roofs.

APPEALING ARCHITECTURE

To make the conversion from a residential to an administrative building visible, the architects wanted to use a material for the front projection and the new penthouse level's parapet that, on the one hand, created a vibrant contrast to the existing red-brick facade, and on the other hand, point to the building's functional nature.

The roof cladding, too, was to be integrated into this design concept. In addition, the roof surfaces of the new penthouse level were to have a pitch of no more than 6°. For these reasons, the planning office Schulschenk decided to use RHEINZINK® titanium zinc and have the roof built as an unventilated, fully insulated structure with state-of-the-art double standing seams.

vating

- *Project: Adding a storey to the GEWOBAU*
- *Central administration in Essen*
- *Year of construction: 2000*
- *Owner: GEWOBAU Wohnungs-*
- *genossenschaft Essen eG*
- *Conversion planning and interior design:*
- *Planungsbüro für Architektur,*
- *Innenarchitektur und Design*
- *Axel & Ulrike Schulschenk*
- *Gross floor area: ca. 405 m²*
- *Floor space gained: 360 m²*
- *Comprising approx. 275 m² office space,*
- *approx. 60 m² staircase, approx. 25 m² balcony*
- *Collaborators: Ralf Wahnberger, Dirk Heese,*
- *Claudia Siewers*

INTEGRATED ROOF SOLUTION

The RHEINZINK solar energy system used is integrated into the roof itself: its solar modules are laminated ex-works directly onto the titanium zinc roof panels, which means they do not need additional fastening. The technical service provider TÜV Rheinland has tested and confirmed the long-term adhesion of the solar modules.

The solar photovoltaic standing seam system is suitable for installation in roofs with a pitch of 7° or more and, by making the appropriate modifications, can even be installed in roofs with a pitch of only 3°. It features state-of-the-art thin-film silicon elements capable of a high energy output even in diffuse light conditions and little sunshine.

SOLAR POWER GENERATION

The GEWOBAU's gable roof provided roughly 85 m^2 of surface for solar modules to be installed. On this surface 64 solar modules were installed with a rated output of 64 Wpeak per module. Factoring in the building's location, the roof pitch, the modules' orientation and output, the system generates 3,300 kWh per year. The solar energy system is noticeable in the building's foyer by the display installed there indicating the current output and the overall energy generation since day one.

This display, in addition to the fascinating design of its administrative building, demonstrates the Gewobau's commitment to ecological thinking and, despite its almost 100 years, its determination to fulfil its duties with a positive, energetic and sustainable outlook on the future.

One-stop architecture and interior design. A new conference centre with a glass roof was built on top of the GEWOBAU's existing administrative building in Essen. This required removing the existing roof and raising the 3rd-floor ceiling by 1 m. Furthermore, the facade facing the street received a striking new entrance area, while the rear facade was made to blend in with the additional storey. The staircase was also renovated, and the building's subdivision was changed – giving it a functional and new look. Axel Schulschenk, architect.

Comprehensive information.
Our extensive RHEINZINK resources contain everything you need to know about RHEINZINK® – from lists of measurements, product specifications, our product catalogue, technical documentation, press releases and general information leaflets all the way to construction recommendations, planning and application manuals and zinc market prices. You can order hard copies or download the material from www.rheinzink.com.

Partne

CLOSE COLLABORATION

As a company, RHEINZINK prides itself not only on its top-quality products but also on its excellent customer relations. In-depth personal assistance and the provision of useful services have led to partnerships with retailers and craftsmen that have been in existence for decades.

GLOBAL INVESTMENTS

Since the founding days, we have continually invested in our company. Today, RHEINZINK consists of the mother plant in Datteln, Germany, and 40 branches and subsidiaries across the globe, 7 of them are German distribution branches. Within Germany alone, we advise and supply to approximately 20,000 architects and planners, 16,000 construction specialists and 1,200 specialist retailers.

ON-SITE SERVICE

RHEINZINK is there to assist you on the construction site. Our on-site services include everything from personal consulting and deployment of an experienced specialist team on the construction site all the way to renting equipment, manufacturing top-quality building profiles and delivering small coils.

MOBILE TRAINING

Craftsmen need training in order to stay abreast of the latest technology. However, trainings are often foregone due to high travel and accommodation expenses. In order to provide craftsman enterprises with inexpensive, hassle-free and useful training opportunities, RHEINZINK has been offering its mobile training sessions for several years with great success.

NEW TRAINING CENTRE

Apart from the mobile trainings, we wanted to be able to offer training opportunities in our headquarters as well, so in May, 2008, we opened the new training centre in Datteln. Our seminars on plumbing technology were developed in co-operation with our retail partners and trade organisations. They cover the specialist theory but mainly focus on practical exercises.

TRADE FAIRS AND EXHIBITIONS

Every year RHEINZINK participates in more than 30 trade fairs around the globe. Through our international offices we already have representation in every part of the world, but we believe it is our responsibility as world market leader to offer support to our customers at key specialist trade fairs as well.

Dedicated to society and the environment .
RHEINZINK is a member of a major study group for prefabricated houses (Studiengemeinschaft für Fertigbau e.V.), a German employers' association, a trade association for materials and components for bracket-mounted rear ventilated facades (FVHF), the PRO METALLDACH initiative, INITIATIVE ZINK, and the German Institute Construction and Environment (ECO), as well as a number of trade guilds and vocational training centres. We also maintain various memberships and activities in countries where RHEINZINK® is used.

Team

A FOCUS ON PEOPLE

Just as strong as our commitment to our products and production are our relationships with the people who manufacture, sell, and incorporate RHEINZINK® into their blueprints and structures. Whether with employees or customers involved in trade, commerce, architecture, or supply, we are interested in long-term relationships that support our business while providing financial and social advantages to employees and long-lasting products, quality consulting, and useful service offerings to customers.

A GLOBAL WORKFORCE

RHEINZINK is active in 30 countries and employs over 750 people, more than 550 of whom live and work in Germany. Our socially conscious approach and dedication to paying well for quality work are the main reasons for our workforce's high level of overall satisfaction, which is reflected in our very low rate of employee turnover.

EXPERIENCED CONSULTANTS

Thanks to our 40 years of expertise and our specially trained consultants, all of our customers can count on us for sound advice on sustainable construction with RHEINZINK®. Architects and planners can take advantage of our consultants' full university backgrounds and applied technical knowledge in construction and architecture. In addition, specialists look to us for qualified support from our craft consultants, all of whom have years of professional experience in metalworking.

RESEARCH AND DEVELOPMENT

Our innovative wide-strip casting and rolling mill has enabled us to ensure high standards of quality and competitiveness since our company's foundation. Meanwhile, the experts in our internal research and development department have constantly improved our processes and manufacturing and come up with useful new products.

OUR ÖKOPROFIT ENVIRONMENTAL TEAM

In 2005, we formed an internal environmental team with the sole purpose of improving our environmental protection efforts. In 2007 alone, we were able to save 400,000 kWh of energy, 256 tons of CO_2, and 120,000 m^3 of water through energy- and resource-conserving activities. This year, we also invested around € 290,000 in a new environmental program in which we plan – among other things – to install an industrial water usage system and a well for pumping industrial water.


RHEINZINK
RE RZ 150
RE RZ 151
RE RZ 152


BauderTEC KSA DUO


BauderTEC KSA

No downcycling.
In the recycling process, many materials fall short of their original quality and are subsequently used for secondary purposes. A number of others even require costly disposal. The product characteristics of zinc, however, retain 100% of their quality during recycling.

Recy

COMING FULL-CIRCLE

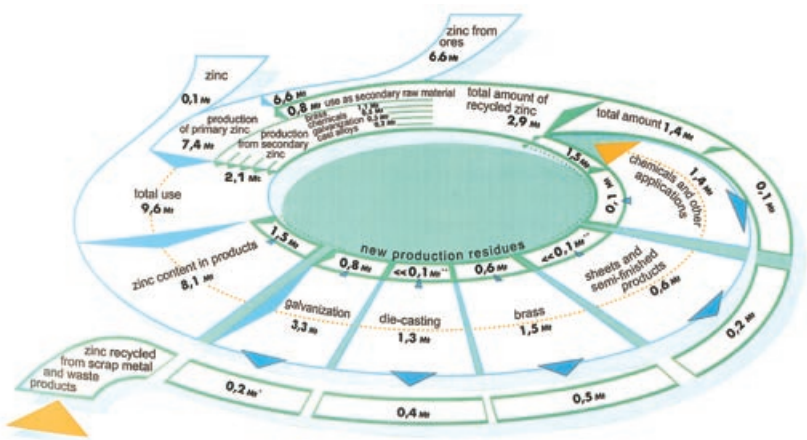
During remodelling or following a building's occupancy phase, RHEINZINK® products can be separated easily from other elements and reacquired. They are 100% recyclable without the need for additional processing steps – such as removing paint or composite materials – and are currently already composed of 30% secondary materials. In addition, we melt down 100% of all trim scrap produced during manufacturing for use in new products. Germany's overall recycling rate for zinc is 96%, and nearly 100% in construction. This means that virtually no zinc is lost in today's construction processes.

ECONOMICALLY INTRIGUING

The energy required to recycle titanium-zinc sheeting amounts to just around 5% of its primary energy content, representing energy savings of 95% compared to the manufacture of new titanium zinc. The demand for titanium zinc scrap is accordingly high. Such scrap can be sold based on the value of 70% of the corresponding zinc content, which provides metalworkers with sufficient incentive to collect any zinc scrap they can find. Studies have confirmed that domestic and industrial waste now contains only trace amounts of zinc.

SYSTEMATIC RECOVERY

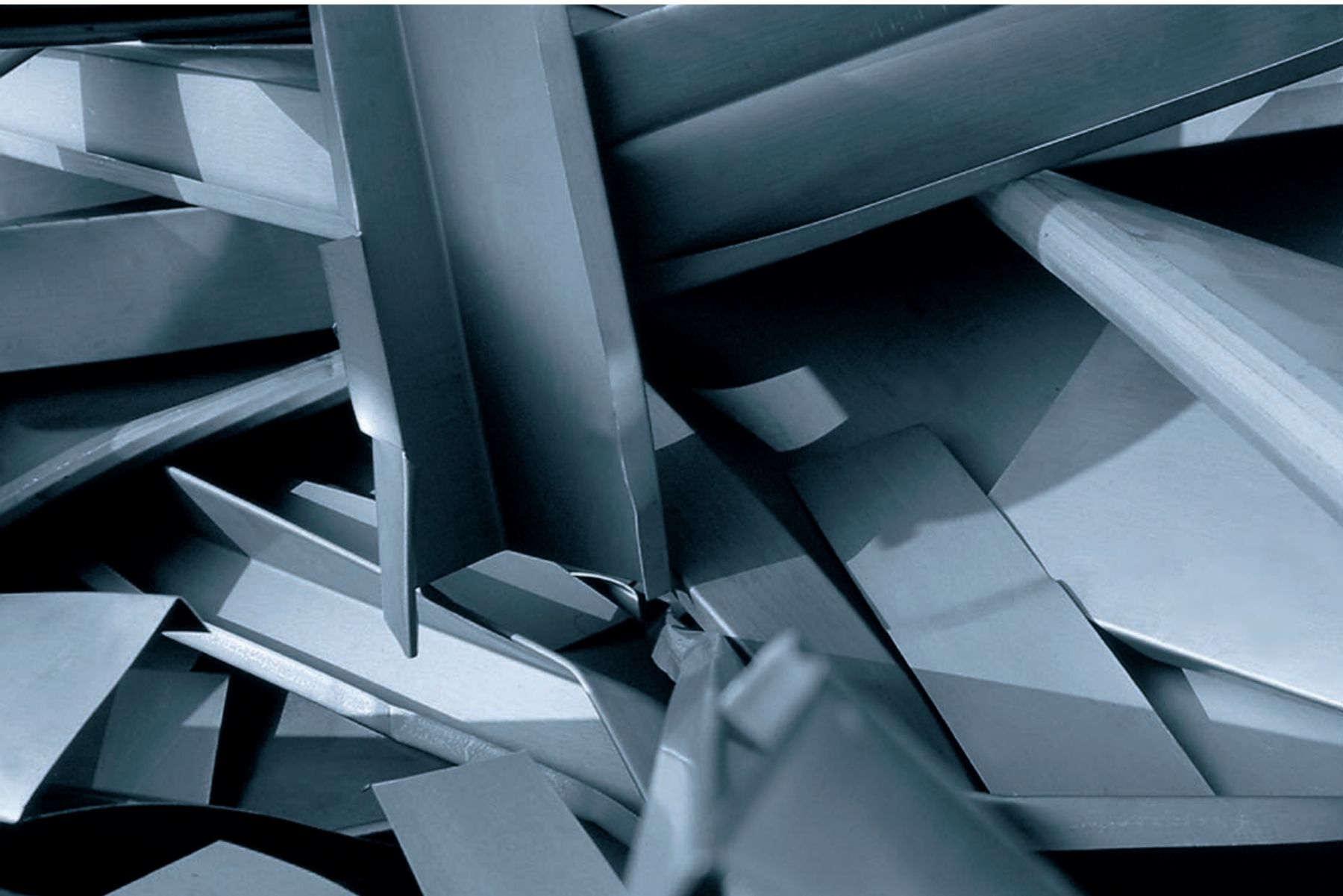
Zinc scrap produced during trimming and remodelling or restoration activities is collected by artisans' businesses and sold either directly or through scrap metal traders to secondary smelting operations. These businesses then sort, smelt, liquate, and finally cast the scrap as zinc or zinc alloy. Due to its high copper content, brass scrap that contains zinc is mainly recycled by the brass and copper industry. To prepare raw materials that are low in zinc – particularly in recycling processes – the Waelz process was developed. In it, the zinc evaporates and oxidises and is then cooled in a filter and recovered as Waelzoxide.



cling

Taking the easy way.

Zinc is mined mainly in countries like Australia, Canada, and Peru, while its largest consumers are the United States, Japan, and the EU member-states. This is why governments also promote recycling as a means of preserving their nations' international independence.



EPILOGUE

RHEINZINK® is and will remain sustainable, a fact demonstrated by investments in the RHEINZINK environmental program. This program includes plans to construct an industrial waste usage system and a new well for pumping industrial water, thereby saving 120,000 m^3 of potable water. In addition, RHEINZINK brochures and other advertising materials will be produced using FSC-certified paper to conserve resources. Our paper-recycling efforts will also be optimised. To conserve energy, we plan to optimise our long-distance heating and minimise power consumption during downtime. Finally, to improve our activities in information monitoring and control, we intend to increase the transparency of our measurement data. All of these projects serve as proof of our ongoing commitment to corporate responsibility and sustainability.

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