



### Making the roof work harder

Britain's population is predicted to grow by 10 million to 70 million by 2029. So, we cannot afford to 'waste' roof space. The fifth elevation can become an amenity to:

- Capture carbon
- Generate power
- Provide a green space and living zone
- Insulate the building
- Capture rainwater
- Provide a natural and bio-diverse, wildlife habitat

### About SIG Zinc & Copper

SIG Zinc and Copper is fully owned by SIG plc, a FTSE 250 organisation that focuses on delivering market leading solutions to the construction industry. We strive to be at the forefront of designing, supplying and guaranteeing exclusive 21st Century roofing solutions.

Teaming up with market leading manufacturers including NedZink, Steadmans and Metal Solutions, as well as a national supply chain, enables us to offer a complete and impartial design and supply service for both new build and refurbishment projects.

### Key services include:

- Fully conversant technical team
- Advise on structural design
- Fabrication of bespoke designs
- Supplying all the materials on time
- Relationship with and understanding of market leading manufacturers
- Professional Indemnity Insurance and full system guarantees



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## SIG Zinc Roofing and Cladding

Pre-formed products and materials to create beautiful buildings





SIG Zinc & Copper, in conjunction with our established partner NedZink, offers a range of zinc products and materials for small and large projects. Available in a choice of finishes and patinas, NedZink is manufactured in the Netherlands with bespoke processing by Steadmans and specialist fabrications by Metal Solutions:

- Panels and Sheeting
- Coils and Strips
- Guttering System
- Architectural Detailing

When installed by an SIG Approved Contractor, our zinc products and systems include a fully integrated 20 year warranty.

With a well earned reputation within the European market, NedZink is an ideal material for use in roofing and facade applications along with key elements such as gutters, rainwater and drainage requirements. Produced to the highest standards in accordance with EN 988 from titanium zinc NedZink is durable, maintenance free and provides aesthetical qualities.

A natural zinc patina layer may form on the surface which means NedZink is mainly used where a natural and lively appearance, high cost-effectiveness and a long life are required.

**Zinc offers many benefits including:**

- Flexible and malleable building material
- Easily fabricated into standing seam or roll cap roofing sheets
- Aesthetically very pleasing, especially over time
- Naturally resistance to corrosion
- Excellent long-life durability
- Minimal maintenance
- Zinc is 100% recyclable, the original metal can be re-used without losing its properties
- Can integrate easily with PV panels
- Offers versatility in design for most roofing applications from private residences to commercial and public buildings

## Fabrication in the UK

In order to deliver market leading solutions we have teamed up with and linked together two market leading fabricators: Steadmans & Sons (part of SIG plc) and Metal Solutions Ltd.

With a combined knowledge spanning across decades, our fabrication partners are able to supply bespoke finished ranges to different lengths that deliver optimal performance a best value through:

- Reduction in design and installation time
- Reduction in wastage

Our partners have state of the art machinery and equipment which enables us to satisfy the most demanding roofing and cladding project. Steadmans & Sons manufacturing processes are certified to ISO 9001: 2008.

Furthermore our fabrication partners services include:

- Punching
- Punching and decoiling
- Slit and re-coil
- Flat sheet line
- Cutting
- Standing seam trays
- Interlocking panels
- Shingles
- Bespoke rainwater systems

## Installation

All SIG Zinc roofing installations are undertaken by our network of approved contractors who are members of the Design & Technology Accredited Contractor Scheme (DATAC). DATAC contractors have undergone extensive and continuous training to ensure that they deliver the highest possible standards.

Roofing projects that our approved contractor network undertake range from small canopies, to geometrically challenging roofs, to complete roofing/cladding envelopes and on all types of buildings; ecclesiastical, educational, residential, commercial and public.

## Warranty

When installed by an SIG Approved Contractor our zinc products and systems include a fully integrated 20 year warranty.



## Description

NedZink produces titanium zinc according to EN 988, an alloy based on electrolytically cleaned zinc with a purity of min. 99.995% Zn (Z1 according to EN 1179) with small additions of the alloy elements copper, titanium and aluminium. The chemical composition, the mechanical and physical properties and measurement tolerances are determined in the KOMO product certificate and the product certificate from Lloyd's Register,

Industrial Quality Scheme for Product Certification by Surveillance of Quality Systems (approval No. QIS 122). Compliance with the set material properties is checked at regular intervals by an independent and neutral control body, Lloyd's Register.



### NATUREL: smooth rolled titanium zinc in sheets, coils and strips

NedZink NATUREL is a durable and aesthetic material that in the course of time develops a unique charm by the progressive patination of roof and façade cladding.

### NOVA: prepatinated titanium zinc in sheets, coils and strips

NedZink NOVA is NedZink titanium zinc that undergoes a patination process to give a fully natural colour.

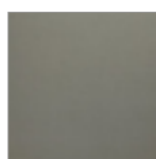
### NOIR: prepatinated titanium zinc in sheets, coils and strips

Beside NedZink NOVA a pre-weathered colour alternative NedZink NOIR can be produced on the patination production line. The uniform dark-grey surface of NedZink NOIR® originates after a chemical surface treatment following the milling process. Roofing, façade cladding and rainwater drainage systems are the correct colour from day one.



### NOVA STRUCTURE: prepatinated titanium zinc with motif

Rolling and smoothing with imprint rollers results in a surface treatment that provides NedZink NOVA with a surface structure on both the top side and bottom side of the material.



### NOVA COMPOSITE

Gives the qualities of zinc an extra dimension. Its many talents lend themselves to new ideas in facades, roofs and interiors.



### NOVA Pro-Tec

NOVA Pro-Tec is process-produced patinated Titanium zinc (NEN-EN 988) with a protective coating on the back side for application on either cold or hot roof constructions.



## Properties

### Chemical composition

Zinc	Zn 99.995%
Copper	Cu 0.08 - 0.17%
Titanium	Ti 0.07 - 0.12%
Aluminium	Al ≤ 0.015%

### Size tolerances

Sheet and coil thickness	± 0.025mm
Sheet and coil width	+ 2/-0mm
Sheet length	+ 2/-0mm

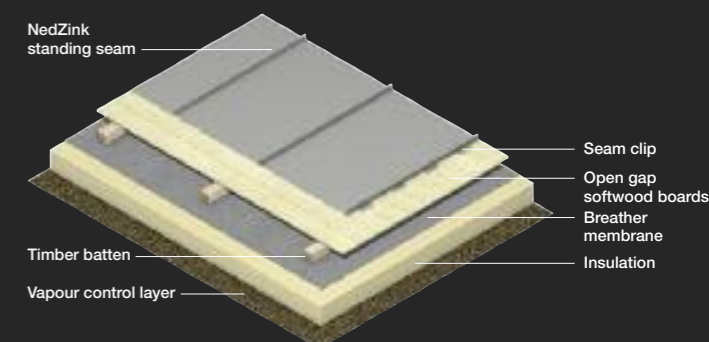
### Physical properties

Density	7.2g/cm <sup>3</sup>
Melting point	420 °C
Recrystallisation temperature	> 300°C
Linear expansion coefficient	0.022mm/(mK)

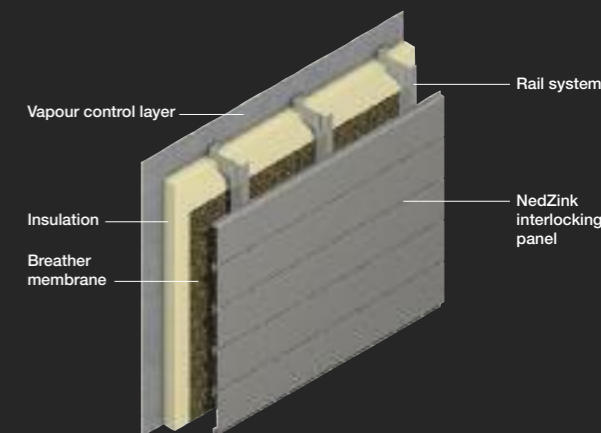
### Mechanical properties

Yield strength elasticity (Rp 0.2)	min. 110N/mm <sup>2</sup>
Tensile strength (Rm)	min. 150N/mm <sup>2</sup>
Elongation (A50)	min. 40%
Vickers hardness (HV3)	min. 40
<b>Folding test</b>	
1. no fractures on the fold	
2. no cracks	
3. relative tensile strength D ≥ 0.7 x original tensile strength	
Permanent stretch in creep test	max. 0.1%
Shrinkage cupping	max. 1.5mm/m
Flatness-corrugation	max. 2mm

### Typical zinc roofing installation



### Typical zinc cladding installation



## Metal handling and processing through Steadmans

Bespoke processing is undertaken by our SIG sister company Steadmans, UK specialists in galvanised roofing sections, composite wall and roof sheets, metal cladding, roofing products and fibre cement sheeting.

Established in 1911 the firm has grown to become a major supplier to the construction and agricultural industries. Purpose built facilities accommodate an extensive range of state of the art equipment and machinery to satisfy the most demanding project.

The majority of Steadmans' factory and office staff have been with the company for many years – which ensuring we have the experience and reliability to meet your requirements.

Steadmans' manufacturing processes are certified to ISO 9001: 2008.



## Forming and fabrication by Metal Solutions

All SIG zinc product forming and fabrication is undertaken by our partner, Metal Solutions Ltd.

With over 30 years' experience in construction they are committed to providing SIG Zinc & Copper design assistance, technical advice, on-site assistance and purpose made fabrication of items including rainwater systems and rainscreen panels. Additionally roofing and cladding from the full range of quality NedZink products.

