

**DUALSHIELD C5H**

**sikla**

# The Solution for Extreme Corrosion Protection Requirements



# Corrosion and Its Effects

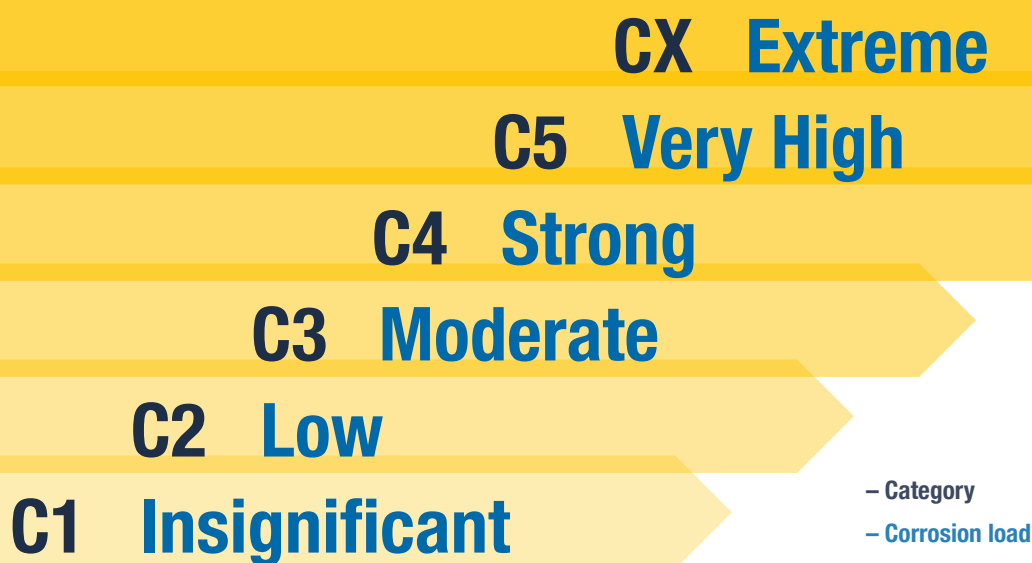
Corrosion is the process in which a material, usually a metal, is damaged by reacting with its environment. The measurable change to the surface can impair the function, safety and life span of a component in the long term (see DIN EN ISO 8044). Analysing the environmental conditions is therefore essential for support systems in pipeline construction and represents an essential basis for project planning and evaluation. Especially as the costs for repair and maintenance in the event of damage can be

significantly higher than the investment in suitable corrosion protection during the design phase.

Corrosion categories are used to assess the risk of corrosion, which indicate the extent to which an environment has a damaging effect on metallic materials.

## Corrosion Categories and Their Significance

According to DIN EN ISO 12944-2, the classification of corrosion categories is based on conditions such as humidity, temperature and exposure to pollutants. A distinction is made between 6 levels going from C1 (very low exposure, e.g. offices) to CX (extreme exposure, e.g. offshore facilities). In addition to the corrosion category, the durability of the coating systems is also specified. This shows the expected protection in years, until significant repairs become necessary: L (low: 7 yrs.), M (medium: 7-15 yrs.), H (high 15-25 yrs.), VH (very high > 25 yrs.).





# New Coating. Significantly Stronger Protection.

With DUALSHIELD, Sikla offers a first-class coating as corrosion protection that meets the requirements of the 1440-hour salt spray test in accordance with DIN EN ISO 9227 and thus corresponds with corrosion category C5 H: 15 - 25 years of protection in a very corrosive environment.

## Application areas

**Outdoor:** Industrial areas, high humidity, aggressive atmosphere, coastal atmosphere, high salt exposure

**Indoors:** Buildings/areas, almost constant condensation, heavy contamination



## Why DUALSHIELD?

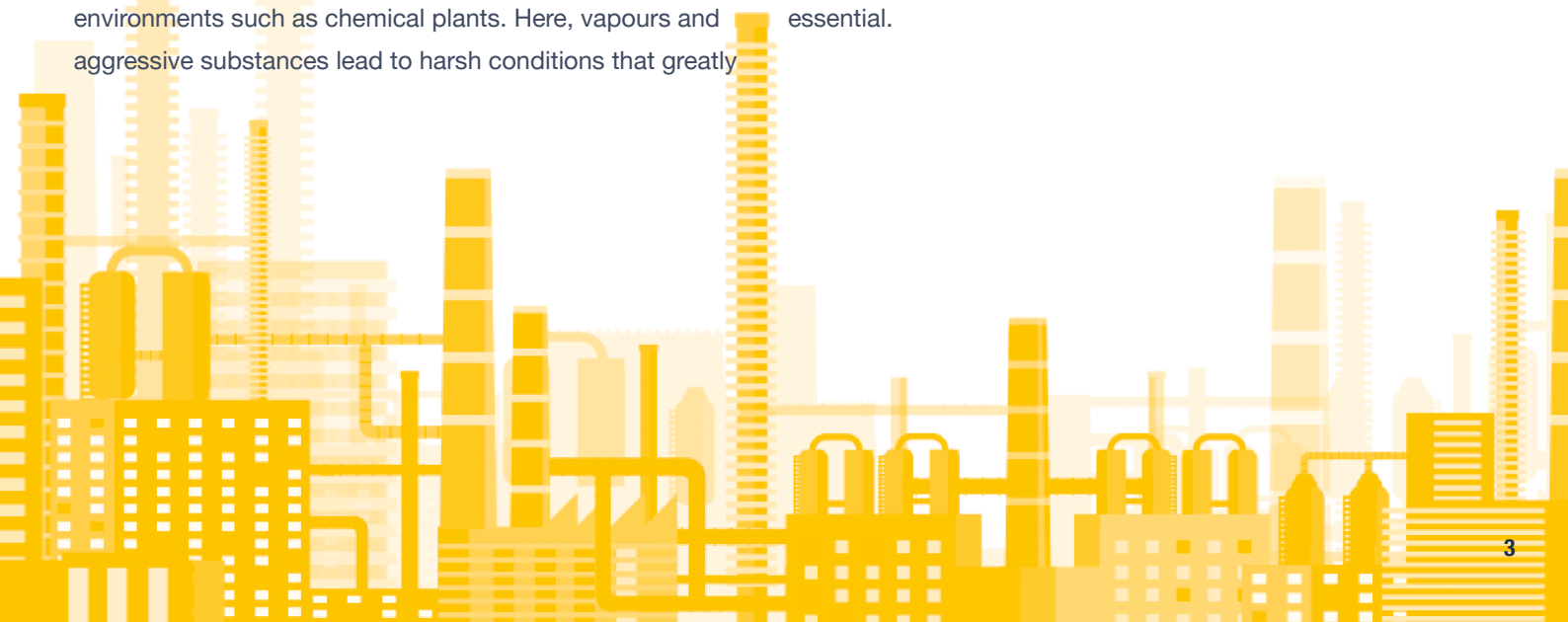
Aggressive and corrosive atmospheres, such as in chemical plants with sulphur or chlorides, severely attack steel. The DUALSHIELD coating from Sikla was specially developed for such extreme conditions and fulfils all the necessary test requirements in the following procedures:

- Salt spray test 1440 h
- Condensation water test 720 h
- Acetic acid test 1000 h

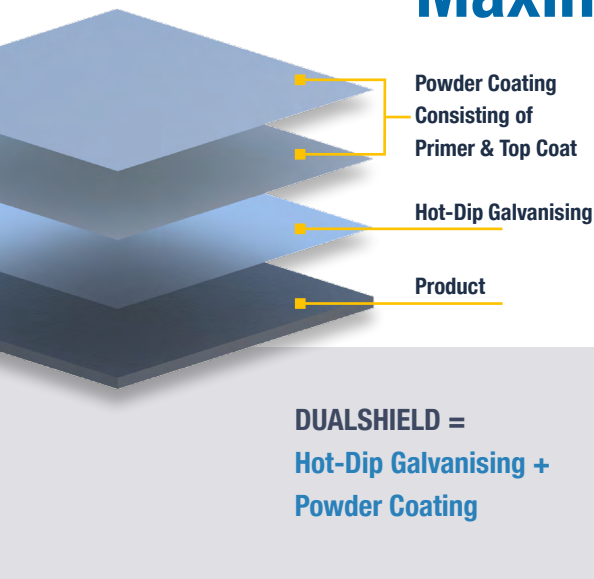
## Microclimate

The microclimate at the place of use is often very different from the general environment, especially in demanding environments such as chemical plants. Here, vapours and aggressive substances lead to harsh conditions that greatly

accelerate corrosion. Humidity, temperature and ventilation play a key role here and make targeted surface protection essential.



# Smart Coating Structure for Maximum Protection



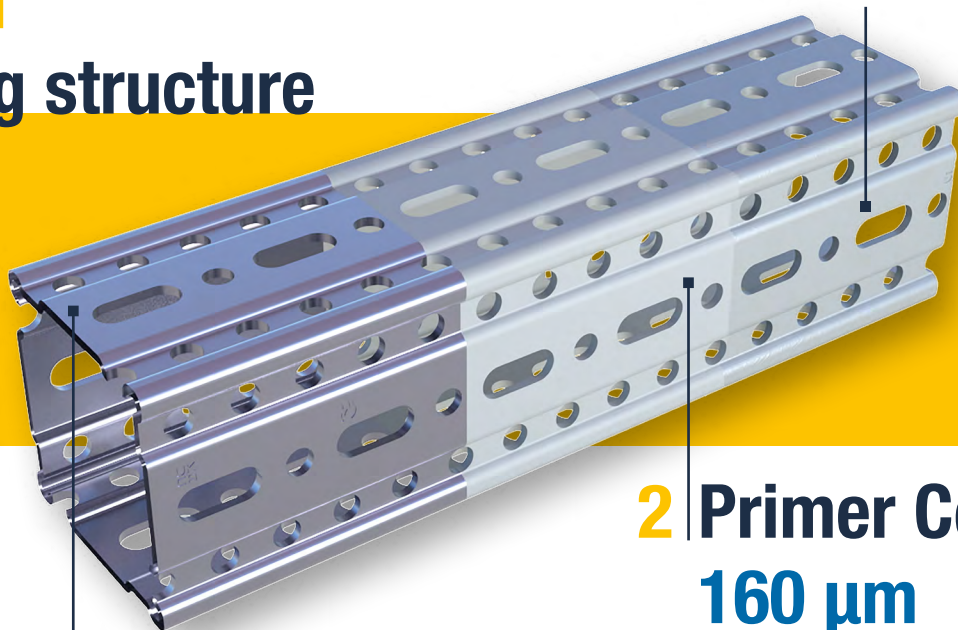
An intelligent coating structure is crucial for long-term corrosion protection. It increases resistance and extends the life span of support structures in the long term. Our C5H coating is based on a robust duplex structure consisting of hot-dip galvanising and various powder coatings.

Each individual layer fulfils specific properties and a targeted protective function to effectively counteract moisture, chemicals and abrasion. This means that our Sikla support structures remain permanently protected even under extreme conditions.

## DUALSHIELD C5H Coating structure

### 3 Top Coat 80 µm

Top coat: polyester paint in RAL 7035 for strong weather resistance and resistance to abrasion.



### 2 Primer Coat 160 µm

First powder coat: with epoxy for improved surface preparation, corrosion protection and chemical resistance

### 1 Basic Protection HCP 55 µm

Standard hot-dip galvanising in accordance with DIN EN ISO 1461 for reliable basic protection against corrosion.

# Our Range with DUALSHIELD

The product groups shown on the right are available with the DUALSHIELD coating.



- Thread-bearing parts are supplied in stainless steel and do not require post-treatment.
- The formlock screws of the siFramo system are hot-dip galvanised and require post-treatment.

A detailed overview of all DUALSHIELD products, including item numbers, can be found in the product range overview.

For further information on delivery times and minimum quantities, please contact your designated contact person at our company.

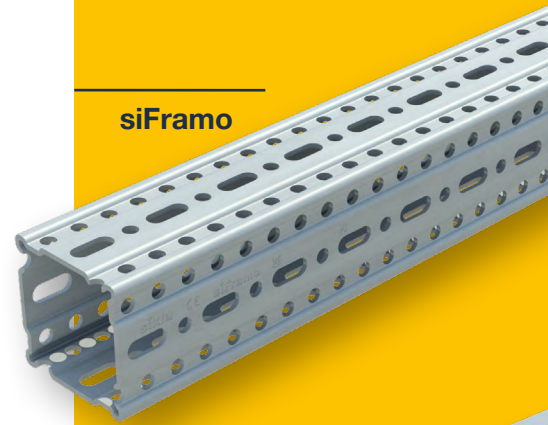


## Product Range Overview

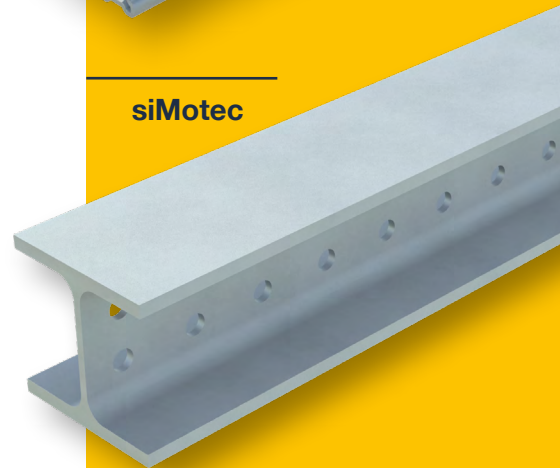
Overview of all products with DUALSHIELD



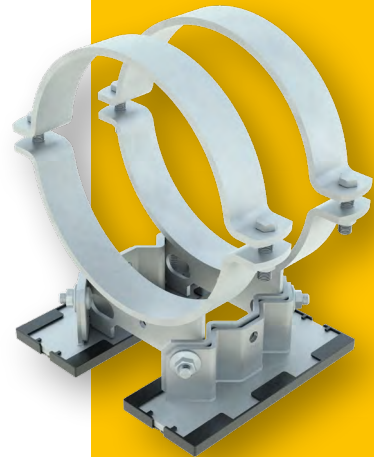
siFramo



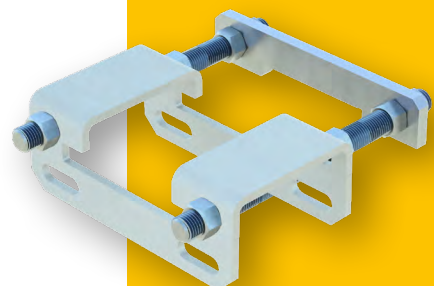
siMotec



Pipe shoe



Attachments





# Sikla – Your Partner for Comprehensive Coating Projects

## Our Expertise



Our experts will find the perfect coating solution for your specific requirements. For optimal corrosion protection and long-term performance.

## Digital Planning

Your duplex-coated products can be planned easily and precisely in our software solutions. This allows us to create a reliable planning basis - from the initial idea to the finished project.



## Logistics & Packaging



We take care of planning the logistics processes so that your goods arrive safely packed and on time at their destination. With customised, professional packaging, we ensure that your assembly parts are delivered and stored safely, even under demanding site conditions.

## Post-Processing & Assembly

A decisive factor in coating is the correct assembly and clean post-processing of the products. We know what needs to be done and are at your side with our expertise and the right range of products for post-processing.



**DUAL<sup>C5H</sup>  
SHIELD**

**Information on  
Post-Processing**



Please follow  
the installation  
instructions



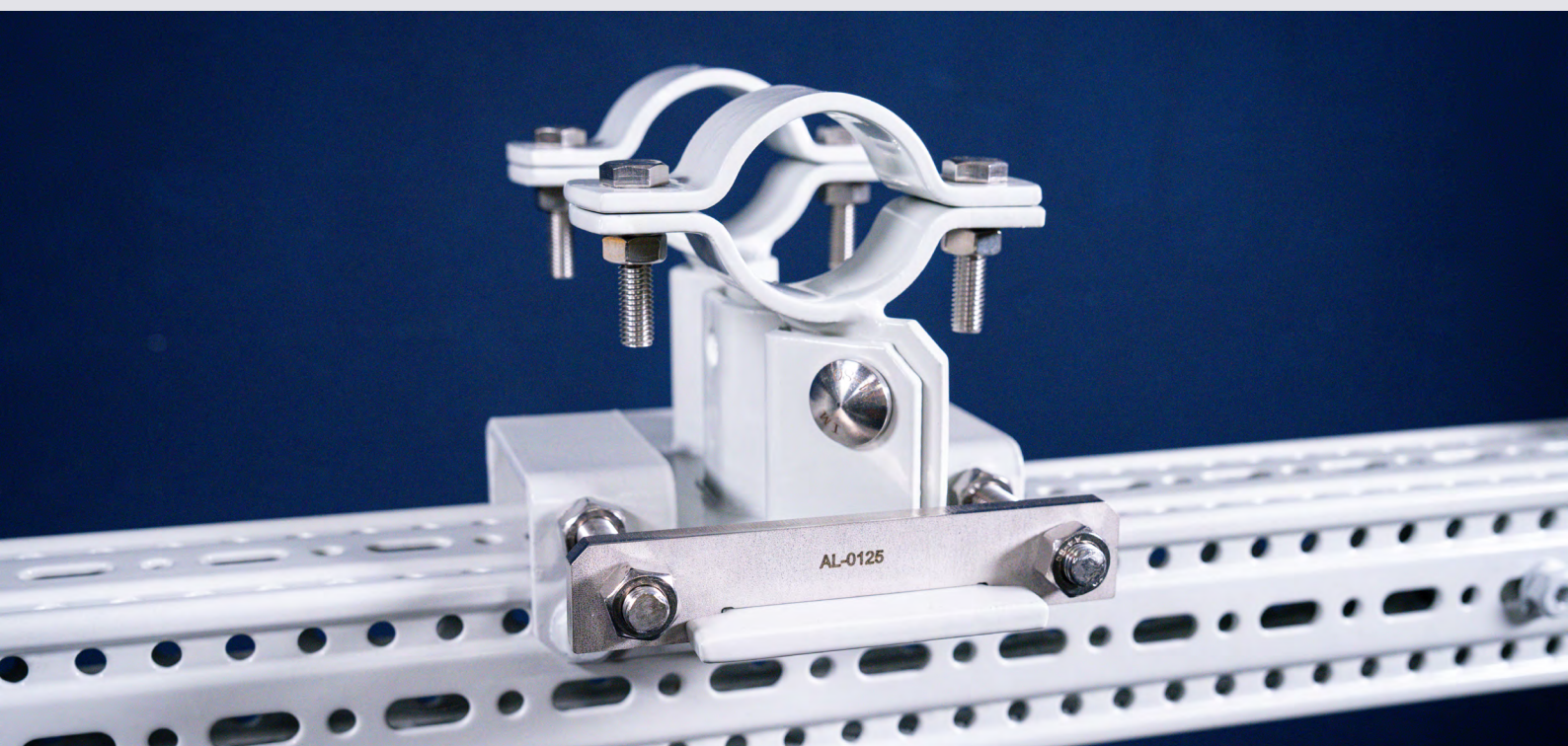
To the  
how-to video

# Individual Advice for Optimum Coating Solutions

At Sikla, we look at each project in its entirety - with a particular focus on the individual conditions on site. Factors such as microclimate, abrasion and temperatures are also considered in our advice.

Depending on the area of application, we combine hot-dip galvanised and DUALSHIELD-coated components, to provide a technically and economically optimal solution.

Whether standard environments or demanding conditions - we are at your side with sound advice and suitable materials. Individual combinations are also possible in order to fulfil your specific requirements in the best possible way. In short: whatever your coating requirements, we can supply the right solution.



## Are you Planning a Project with High Corrosion Protection Requirements?

Put your trust in Sikla! We are your reliable partner for your next coating project and will be on hand to advise you throughout the entire process. Get in touch with us!

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# Find out more about **DUALSHIELD** here:



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