HIGH CORROSION PROTECTION – HCP

sikla

When corrosion protection becomes critical

High Corrosion Protection
picking the best option

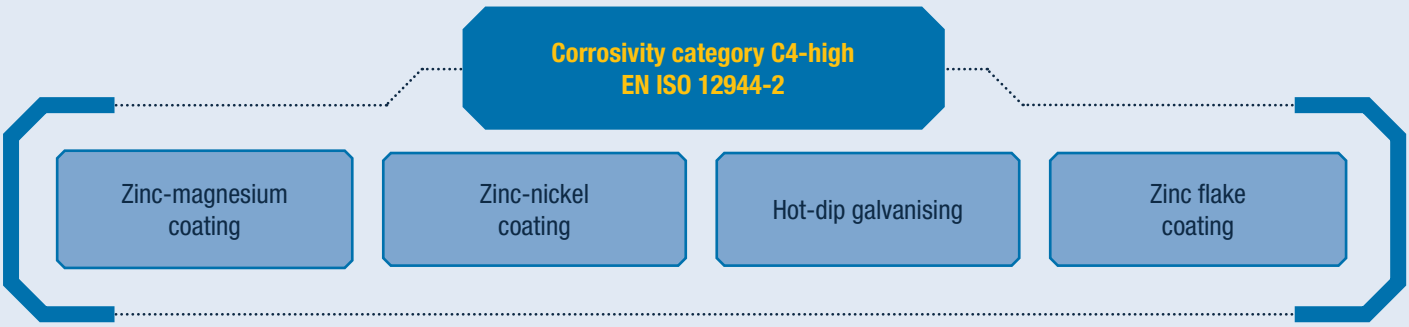
Though the retrospective costs and structural impacts can be significant, the effects of corrosion are often underestimated. If not carefully considered, it may be necessary to completely replace components or entire structures due to the impacts of corrosion. However, Sikla can provide assurances against corrosion with our High Corrosion Protection solutions, to facilitate project execution and provide corrosivity category C4, as standard in our product range.

It is commonly known that reliable corrosion protection is best achieved with zinc. Zinc protects steel from corrosion in three main ways: firstly, a zinc-based separating layer creates a physical barrier between the steel and corrosive environment. Secondly, zinc inherently creates a patina on its surface, forming a protective barrier that slows down the corrosion of the zinc itself. Finally, zinc and iron form a so-called “local element” in humid environments. This interaction releases electrons before it slowly dissolves. As a result, the steel is sacrificially preserved by the zinc.

HCP-protection system

Under the umbrella term “High Corrosion Protection – HCP” we offer customised corrosion protection. Components designated “HCP” comply with the corrosivity category C4-high.
To allocate a specific coating system to one of our products, we consider factors such as the product’s functionality (e.g. threads) as well as financial implications and industry expectations.

Cantilever Bracket 41/41
after 1,440 h salt spray test



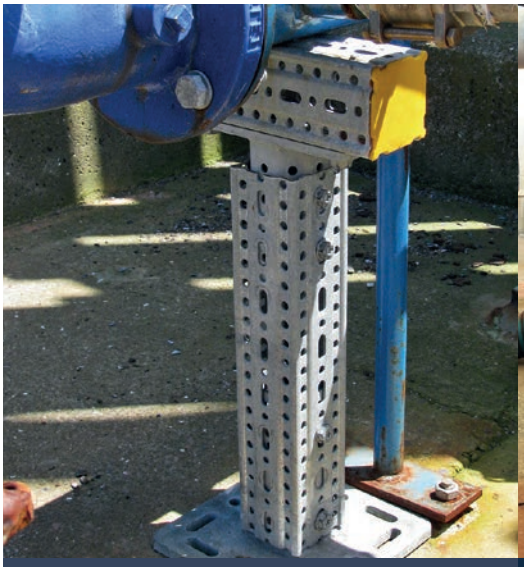
By carefully selecting coating processes, we can achieve significantly improved component protection, even with thin layers. Careful selection of coatings allows us to reduce resources and be more environmentally conscious, whilst allowing you to benefit from more efficient and more convenient methods.

Our comprehensive HCP product range can be checked in our Siconnect e-catalogue on sikla.co.uk and sikla.com.au

Environmental conditions / Corrosion expectation

Systematic corrosion protection planning requires thorough analysis of climatic site conditions. These can have negative impacts on the coating's durability. The norm EN ISO 12944-2 categorises climatic corrosivity categories. Additional corrosion factors such as storage, contact with adjacent materials and chemicals must be considered.

Sikla has ample practical experience with the subject of corrosion protection and will be on hand.



Traditional and siFramo 80 T-supports **a few months after installation**

After 6 years of weathering – Offshore (CX)

Customised High Corrosion Protection – When the project is tricky

Certain applications, e.g. coastal or aggressive atmospheres, necessitate an exceptional level of corrosion protection. In such instances, Sikla have a range of bespoke coating solutions to choose from.
These are some examples:

Zinc lamella coating

- Resistant to organic solvents
- Negligible coating thickness
- Environmentally friendly, as free from chrome VI and heavy metals

Cathodic Dip Coating

- Scratch-, impact- and hydrochloric acid resistant
- Fume-reduced painting process
- Solid prime layer for further coatings

Powder Coating

- Resistant to various chemicals
- Good wheather performance
- Solvent-free

TEST CERTIFICATE

Test report-No.: 150104/140641.1
Client: Sikla GmbH, In der Lache 17, D – 78056 Villingen-Schwenningen
Subjects of testing: coated test panels and coated end support STA and beam section TP F connect with self forming screws FLS according to the assembling instruction of the client
coating systems: Substrate: Steel, Sa 2 ½ blasted; Conversion layer: dip zinc phosphating, Granodine 958 company Henkel
Coating: cataphoretic coating, Cathoprime QT 82-7035 company BASF top coat: RAL 7035 smooth, Code 87446 PE/P/HD company Inver

The tested coating system fulfils the requirements in accordance with DIN EN ISO 12944-6 corrosivity category C 5M high.

Magdeburg, 10.04.2015
iLF Forschungs- und Entwicklungsgesellschaft Lacke und Farben mbH

Dipl.- Chem. Cornelia Dreyer
Lab supervisor Application Technology

The tested coating system (siFramo End Support STA F and Beam Section TP F connected by Self Forming Screws FLS F) complies with EN ISO 12944-6 Corrosivity category C5M-high.

Sikla UK & Ireland
Milton Keynes | Belfast

Sikla Oceania
Canning Vale (WA)

miltonkeynes@sikla.co.uk
canningvale@sikla.com.au

sikla.co.uk | sikla.ie | sikla.com.au | sikla.co.nz

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