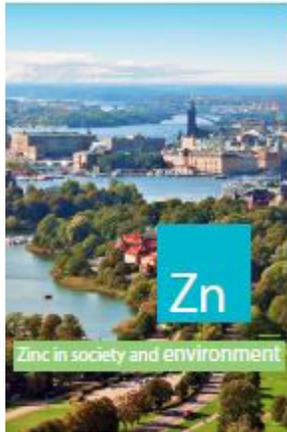




# Newsletter October 2017

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## New information brochure about zinc in the society and environment



Nordic Galvanizers has produced a new information brochure about zinc in the society and the environment together with the communication company Kreab. The idea to create the brochure from the beginning came because some material that could be used in contact with authorities, especially in Stockholm, was needed. Historically it has been restrictions around the usage of both copper and zinc in Stockholm, and there are still discussions about it now and then. Also in Copenhagen it

has been discussions to ban copper and zinc because of the risk to increase the content of those metals in the groundwater, which also is used for production of drinking water. In the brochure some important information about zinc and galvanized steel is given in a pedagogic way.

### Abstract from the brochure:

"In the case of metals such as zinc, it is often their concentration in water and sediment that are measured when intending to determine their status in a specific environment. The concentration measured is known as the total concentration, but this is not what can affect the environment. In order to find out how the environment is affected, we need to calculate or measure what proportion of the concentration that is bioavailable, i.e. can be absorbed by organisms. We also need to find out the natural background concentration for the relevant area.

A great deal of work has been done in the EU to record how different substances and chemicals affect the environment. Extensive studies have been performed for zinc, which have managed to establish the value under which no environmental impact occurs.

The Swedish authorities have chosen to apply safety factors to the EU's guidelines values, which means that these values are lower in Sweden than in the other countries in Europe. Zinc concentrations in Sweden are so low that they are normally under the guideline value, even with the safety factors. In cases where the zinc concentration is found to be increased when the total concentration is taken into account, we calculate the bioavailable concentration and subtract the natural background concentration. Studies have shown that the zinc levels in Stockholm's waters and sediments, which have been subject of special interest, are below the current guideline values."

The brochure is available in English and Swedish, and will be printed and sent out to all members in NG. Each plant will have 5 copies. If you want more, you can order it.

## Brochure about galvanized facades for buildings

During recent years we have got more and more questions from architects that want to use galvanized steel for facades.

To show some examples we have produced a small brochure also for that.

### Abstract from the brochure:

"Traditionally galvanizing is chosen because of the durable corrosion protection, but now we see more and more applications where architects choose galvanizing for aesthetic reasons. The crude metal surface creates very attractive contrasts with, for example, wood or glass.

The increasing interest in environmental issues, that currently exist in the community, also speaks for hot-dip galvanizing for corrosion protection. Galvanized steel obtained greatly increased lifespans, saving raw materials and energy. The fact that galvanized steel seldom or never needs maintenance also contributes to an environment friendly profile."

Also that brochure will be sent out to all members, with the option to order more copies. Both brochures could also be downloaded from NG:s web page, where they are on the front page.

## Nordic Galvanizers arrange a study trip to China!

If the interest is big enough Nordic Galvanizers plan to arrange a study trip to China, to visit two large galvanizing companies. One is Youfa Steel Pipe Group, located in the area of Beijing and the other is Pretec, close to Shanghai. Pretec moved into new production facilities of about 20,000 m<sup>2</sup> during spring of 2016. The production plant covers mechanical manufacturing, hot dip galvanizing and epoxy powder coating processes. Most of the equipment and applied technologies are imported from Europe.

The trip is planned to take 7 days with 5 nights in nice hotels and also some spare time with possibilities for sight-seeing and other activities. The cost for the trip is quite reasonable, around 13 000 SEK, including flights, 5 hotel nights in nice hotels (4 or 5 stars), buses and trains in China. More information and a request for interest for this activity will be sent separately.

## Steel with low reactivity

Historically it has been many questions and also some claims related to galvanizing of steels with too high reactivity, where the coatings have been very thick and have had poor adherence. But lately we hear more and more about problems in the opposite directions – too low reactivity and because of that lower coating thickness than the requirements in standard EN ISO 1461. Many galvanizers have noticed that those steels look very smooth and shiny, and they have got the nickname "laser steel". After discussions with steel producing companies we have understood that almost all steel producers nowadays work



Galvanized steel in architecture  
Facades



to get as smooth surface as possible, and low surface roughness on all steels will be the future. Aluminum killed steel, with low silicon content, will also be more and more common, since both bendability and impact resistance are better than on silicon killed steel. It seems like the combination low surface roughness, low silicon content and nickel additions to the zinc bath means that it is hard, or almost impossible, to fulfil the thickness requirements without blasting the steel before galvanizing.

This problem is common for all EGGA members and some studies have been performed in Germany. Nordic Galvanizers will also work with the issue and take part in some practical tests. More information will come later.

### Cooperation for knowledge dissemination

#### MITF - Metal Information

MITF - Metal Information - is a forum for metal issues aimed to spread knowledge about metals and their impact on the environment.

Many metal industries cooperate within MITF:

- Jernkontoret (Branch association for steel industry)
- Scandinavian Copper Development Association (SCDA)
- Nordic Galvanizers
- Svemin
- IKEM, Innovation and Chemical Industries in Sweden

The purpose of MITF is to disseminate knowledge about metals and their impact on the environment. A strategically important part of the work is to create trustful relationships with government, politicians, companies and other stakeholders.

MITF also works to spread correct terminology regarding metals. A good example of this is the definition of a heavy metal which, in itself, has no connection to hazard or environmental properties, but only describes that a metal has a high density ( $> 4.5 \text{ g / cm}^3$ ) which means that most metals are heavy.

### Seminar: Classification of metals and alloys and its implications in the non-toxic society

31 of October the MITF group will arrange a seminar to increase the knowledge about metals and alloys and the difference between the concentration of metallic constituents classified as hazardous and the risk for exposure of metals in alloy. Information about test methods for exposure and bioavailability of metals will also be discussed.

The target group for the seminar is regulators, authorities, metal alloy producers, downstream users in the Nordic countries, scientists, and policymakers. Speakers at the seminar are among others Lisa Anfält, The Swedish Chemicals Agency, Urban Boije af Gennäs, Seconded National Expert at the European Commission. There will also be case studies from the industry; Carl Enqvist, SKANSKA, will talk about their green building strategy and Camilla Kaplin, Outokumpu, will inform about classification of stainless steel.

### Conference and annual meeting 2018

The board of NG has decided that there will only be one member meeting a year from now on. Next meeting will be the conference and annual meeting 2018. That me-

eting will be arranged on Gylland in Denmark 22-23 of May and will extend over two full days with conference, annual meeting and a small exhibition, where NG:s affiliate members have the possibility to show and explain about their products. It will be a program with more space and time for discussions and social intercourse. The second day will be used for works visit. In the area of Herning on Gylland there are three big plants quite close to each other; Dansk Overflade Teknik A/S Brande, Dansk Overflade Teknik A/S Vildbjerg and Nordvestjysk Galvanisering A/S in Holstebro. Accommodation and dinners will be planned in cooperation with our Danish members, so we are convinced that it will be a nice event from that aspect. Save the date - more information will follow!

### Good demand for hot dip galvanizing

There are many building and construction projects ongoing in the Nordic countries for the moment. In most major cities, cranes extend to the sky and road and tunnel projects are common. A lot of galvanized steel is used for these activities, and many of NG's members report that the activity is high.



Bridge rails and fences in hot-dip galvanized steel on Norra Länken, recently opened for traffic in Stockholm.

Norra Länken in Stockholm is one of Northern Europe's largest road tunnel projects. Passenger cars and heavy traffic are led down into tunnels, which means that inner city streets become safer and provide a better environment for pedestrians and cyclists. At the same time, the accessibility of traffic increases when it is possible to take the tunnels instead.

Together with Södra Länken and Essingeleden, Norra Länken forms a coherent traffic system. Norra Länken will simplify for traffic to Värtahamnen and Frihamnen, the country's most important ports for freight and passenger traffic to the Baltic States, Finland and Russia.



The autumn is here...