

# Newsletter May 2016

Nr 1 2016

## Board meeting with work shop

Nordic Galvanizer's board started 2016 with a full day board meeting, which except the normal reporting from the information office also included a work shop where the board members were divided in groups to discuss different issues, to strengthen the association and make it more effective.

One thing that was discussed was how to get the members more committed to Nordic Galvanizers and to attending the meetings. A suggestion was to form committees to work with specific subjects. For example a technical committee, a market committee, a funding committee etc. A committee could exist for a period of time, for example one year, and a board member could serve as a chairman for the group.

The aim for a market committee could be to focus on how to make customers choosing galvanizing. The committee should create ideas how to better compete with the paint industry, who has an aggressive marketing and are very successful in attending project meetings where important decisions about material selection and surface treatment are made. It is also of interest to have an intence cooperation with industries linked to galvanizing. For example the corrosion painting company Alucrom believes that paint on galvanized steel is the best system for long durability of steel constructions, and we should work together to spread this message.

Another question that was discussed was galvanized facades. How can vi make it easier for architects to choose galvanizing? The information office has had a lot of questions from architects about facades and plates. The architects believe that they can order galvanized facade plates from stock and when they realize that no such thing exists, they find the idea of using galvanized steel difficult. To make it easier for the architects to choose galvanized steel we will make a guideline with examples of size of plates, steel plate thicknesses and fastening systems. Today many of the plates used in Nordic countries are ordered from the Baltic states.



*Galvanized facades are popular and a growing market.*

## Best available technology for galvanizing plants – the European directive is under revision

The purpose of the IED Directive - Industrial Emissions Directive (earlier called the IPPC Directive), is to coordinate activities to prevent and control pollution produced by industrial processes. The EU Member States are now invited to provide information in a range of issues related to the processes.

Many authorities choose to have a dialogue on this issue and work together with the industry. In the Nordic countries, Denmark and Finland have chosen to work that way, and Nordic Galvanizers took part in a meeting with Danish authorities and galvanizers in Odense at the beginning of May. The aim of the directive is to prevent, reduce and as far as possible eliminate pollution arising from industrial activities. Efforts at the actual source of contamination should be prioritized, ensuring prudent management of natural resources. It should also take into account the economic situation and specific local characteristics of the place where the industrial business is performed. The directive will also help to achieve fair competition in Europe - requirements for industrial plants will be equal in all member countries. We think that the directive will favour Nordic companies, which normally have high standard but competing with production in countries where requirements are lower.

To assess what Best Available Technique (BAT) is, the authorities will collect datas from plants around Europe. The aim is to prepare a reference document on the best available technology, called BREF - Best Available Technique Reference Document.

When the authorities collects information on the hot-dip galvanizing process, they ask a number of questions regarding the various steps in the process; degreasing, pickling, fluxing and galvanizing are ranked in terms of importance to the environment:

- Is, for example energy, water and material consumption of such magnitude that it affects the environment?
- Is the generation of used process baths large?
- What type of gaseous components are formed?

There are also questions regarding substances that may have environmental impact. For example, are so-called CMR substances, SVHC substances or substances that are priorities in the Water framework Directive used in the galvanizing process? CMR stands for carcinogenic, mutagenic and reproductive inhibiting, and SVHC is the abbreviation for "Substances of Very High Concern". Lead and nickel are prioritized substances in the WFD. However, no CMR or SVHC substances are included in the galvanizing process or pre treatment.

## Discussions about how to classify zinc in the building assessment system "Byggsvarubedömningen"

Byggsvarubedömningen is a multi sectoral systems for environmental assessment of building products in Sweden. Byggsvarubedömningen consists of the largest and most important real estate owners, developers and contractors, including Peab. Together they have developed a standard and a system for the environmental assessment of building products. Last autumn there came up a suggestion to classify zinc and copper as "Should be avoided" in the BVB data base. After discussions and information from NG the assessment of galvanized products will be "Accepted", while pure zinc products like roofing materials etc will still be in the "Avoided" group. Nordic Galvanizers will continue to work on this issue together with other zinc industries with the target to get rid of all doubts about zinc and zinc coated products.

### BYGGVARUBEDÖMNINGEN

Utkast, livscykelkriterier, 2015-12-14

4. Bruksskedet		
Rekommenderas	Accepteras	Undviks
4.1 Urlakning till mark eller vatten	--	Risk för urlakning av koppar eller zink
<b>Really important to get rid of this assessment!</b>		

This picture is from last autumn when zinc was classified as "Avoid". Zinc is now moved to the yellow column, "Accepted", but of course the goal is to be green - "Recommended".

## Nordic Galvanizers on Nordbygg 2016

On April 5 to 8 Nordbygg, a trade fair for construction-related products, took place at the Stockholm International Fairs. Over 500 companies from more than 30 countries exhibited this year. For Nordic Galvanizers, which exhibited at Nordbygg a number of times before, this year's fair was perceived as little more cluttered with a huge product range and visitors who seemed not quite able to take in all that they were exposed to. A number of interesting meetings were however performed, particularly with engineers and architects. As usual Nordic Galvanizers "Handbook in Galvanizing" was very popular. Many visitors were curious about what "Approved Galvanizer", the certifying of galvanizers that galvanize structural steel work that will be CE-marked by the manufacturer, was. A pair of Nordic Galvanizers members attended and exhibited themselves, and it gave the opportunity to some nice discussions.



Nordic Galvanizers had produced fresh new roll-ups for the fair Nordbygg. Something we of course will benefit from at many more occasions.

## Nordic Galvanizers spring conference and annual meeting in Oslo

On 28-29 April, Nordic Galvanizers held its spring conference and annual meeting at Hotel Bristol in the center of Oslo. The conference began with a speech from the chemical supplier Candor who told us about their products for increased quality, environment safety and economy. Roger Pankert from Boliden gave a very interesting presentation entitled "Can bath chemistry counteract deviations?" To enhance a metallical bond, the steel has to be free from any contaminations. Usually steel is covered with:

- Rust ( $Fe_3O_4$  and  $Fe_2O_3$ )
- Fe-fines from fabrication process (lamination, drawing..)
- Emulsion-rests (from forming-process).

Before dipping the steel into the liquid Zn, it has to be clean!

Black spots, a quite common defect after galvanizing, could be caused of all steps in the galvanizing chain, from degreasing to dipping. By influencing the bath chemistry, physical properties like surface tension and viscosity of the zinc melt can be optimized. Another important parameter for the galvanizing result is the wetting behaviour. Wetting behavior depends on surface cleanliness and rugosity but also on steel reactivity. Reactive steels with high Si content shows better wetting behavior. By optimizing the bath composition the wettability can be improved and because of that also the quality after galvanizing. Appropriate bath composition can help to reduce defects related to non optimized pre-treatment, concluded Roger, and told us that a new alloy from Boliden will be launched next autumn.

Mark Harrall from Zinco UK told us about experiences from 10 years of kettle inspections. Good heat management is the key - not only to save money, but to extend kettle life. This is even more important when commissioning a new kettle. Dross is an inescapable part of the process, but allowing dross to accumulate in the base of the kettle for long periods can be fatal. Dross acts as a thermal mass, absorbing and retaining heat. It is vital for the health of a kettle that it is regularly cleaned. Mark Harall said that for kettle life they see two main areas that customers sometimes neglect that can have a significant impact on the kettle; thermocouples and wash lines.

The majority of issues Zinco UK see with kettles can be traced to fairly simple problems with easy solutions. Drossing - make sure that it is a regular part of your routine and that you have the right tools to do the job. Make sure that the corners are dross free. Cleaning - make sure that the thermocouple is regularly removed. Clean ash build-up off the sides of the kettle as part of usual cleaning routines.

Annikki Hirn gave a presentation about lobbying for environmental issues, based on an power point presentation which is prepared so that NG:s members should be able to use it in contacts with authorities and local politicians. The conference ended with a talk from Yngve Fahre, ex Umicore, who informed about working in China.

