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## 1 Helmut Vesper obituary



On 4 June 2014, the long-standing director of the Deutschen Forschungsgesellschaft für Oberflächenbehandlung e.V. (DFO) passed away aged 74. Mr Vesper actively accompanied GSB International during his time as director of the DFO. He played a major role in facilitating and coordinating GSB research projects, such as projects on filiform corrosion, introduction to pre-anodising and the increased application of powder paints. Together with Mr Schunter, Mr Vesper, the then Chairman of the DFO Expert Committee on Aluminium Surface Treatment, set the milestones in the development of GSB to become the leading quality organisation.

## 2 Declaration of Conformity (CE marking) in accordance with EN 1090 for aluminium and steel

To begin, a few words on the EN 1090 standards. The standards consist of three parts:

- EN 1090      Execution of steel structures and aluminium structures
  - Part 1: Requirements for conformity assessment of structural components
  - Part 2: Technical requirements for steel structures
  - Part 3: Technical requirements for aluminium structures

Since 1 July 2013, the new building product regulations have applied within the EU. Load-bearing structures are only allowed to be brought onto the market if the constructions are provided with a Declaration of Conformity and a CE marking in accordance with EN 1090. A transition period remains in effect for Germany until 1 July 2014. The Declaration of Conformity and CE marking require that the Factory Production Control (FPC) of the manufacturer of the load-bearing structure is certified. The certification is carried out by an institute accredited to do this.

The Declaration of Conformity and the CE marking contain all product characteristics, such as geometrical tolerances, suitability for welding, fracture toughness, fire behaviour, etc. The "Durability" section is of particular interest to coating companies. It contains information on corrosion protection, i.e. that the execution of the corrosion protection also has to be integrated into the FPC of the manufacturer of the load-bearing structures. If the manufacturer of the load-bearing structures carries out the coating work within his company, then this is easy.

In practice the coating work is carried out by hired coaters, which then have to be incorporated into the FPC of his customers. A distinction now has to be drawn between steel and aluminium.

- EN 1090-3 Aluminium

This standard contains all technical requirements for aluminium structures, e.g. installation, welding, tolerances.

Surface treatment is covered under point 10 and Annex F of this standard. It is noted in Annex F that the quality assurance and assessment can take place in conjunction with a recognised European quality seal. For the GSB coater this means that he can provide evidence for the FPC and the Declaration of Conformity of his customer by means of the Aluminium Quality Seal of GSB International in accordance with QR AL 631.

- EN 1090-2 Steel:

This standard contains all technical requirements for steel structures, e.g. installation, welding, tolerances.

The execution of the corrosion protection or the coating work is described under points 10, 12, 12.6 and Annex F of this standard. In comment 2 under point F1.1 in appendix F, reference is explicitly drawn to the two standards EN 13438 and EN 15773 for the powder coating of steel. In contrast to aluminium, this standard does not contain any explicit reference to a recognised European quality seal. However, in our view the Steel Quality Seal of GSB International is suitable in accordance with QR ST 663 as reference is explicitly drawn to the two cited standards in the quality regulations.

Please contact the GSB office for details: [info@gsb-international.de](mailto:info@gsb-international.de).

### 3 Subsequent coating of cast aluminium wheels (commonly known as: alloy rims)

Dekra and TÜV jointly published the following information sheet:

Repair of aluminium alloy wheels versus optical treatment of wheels

Description of optical treatment of wheels

On page 2 (marked in yellow), practically all types of powder coating after the initial coating are ruled out. The information sheet is enclosed with this newsletter.

It is known that semi-finished aluminium products lose some of their strength during the curing process. With curing temperatures of 180 – 200°C, the range for the heat treatment of aluminium alloys has been reached. If the aluminium alloys are re-coated, their mechanical values – strength and expansion – drop even further.

An aluminium wheel is a safety component and the reduced mechanical values could lead to breaks or cracks e.g. when driving over curbs or similar obstacles.

In practice it is impossible to be sure of the frequency with which a wheel is reprocessed during its useful life.

### 4 IQC Industrial Quality Coating – Information event on 19 May 2014

#### IQC information event in Halle

In the April issue of JOT, the new IQC (industrial quality coating) quality label was unveiled to the industry. GSB International developed the label for industrial coatings. Companies interested in the content and benefits of the quality label can now find more information at regional events. The opening event took place in February 2014 in Iserlohn. The second regional conference took place on 14 May in Halle.



Over fifty participants took advantage of the presentations on offer, which spanned the entire process chain, from aluminium, steel and galvanised steel to surface pre-treatment as well as the coating material and process.

Jürgen Uhrmann of Alufinish presented pre-treatment processes with their advantages and disadvantages. Given the ban on chromating from 2017, the speaker also addressed the changeover from existing pre-treatments to chromium(VI)-free processes as well as their ability to be used on multiple metals. Helmut Heilen of Inver and Herr Chris Herrmann, PowCos, provided an overview of the powder coating technology and the properties of the paints. As well as corrosion protection, weather protection is also sought-after here. Textured paint surfaces are increasing in importance and lend the components an individual character.

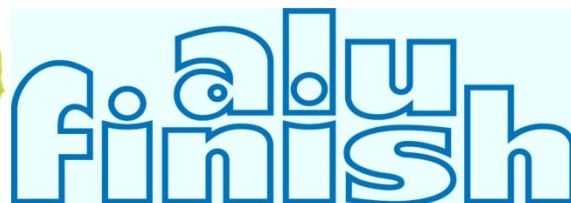
Jörg Seiche of LOV reported on his experiences with the IQC quality label regarding process assurance, increase in productivity and competitiveness. In addition, the user described in detail the [energy efficiency measures](#) carried out at his company. Timo Miller of TQC presented different procedures and devices for process monitoring and quality review. Werner Mader of GSB International brought the series of presentations to a close with a detailed depiction of the requirements of the quality label and its implementation in the business.



At the Aluminium exhibition in Düsseldorf, which takes place from 7-9 October 2014, IQC will be presented to a wide international audience. Events for interested parties in the regions of south-west Germany and south Germany are planned in the autumn.

Over fifty participants take the opportunity in Halle to find out about the new IQC quality label.

The event was supported by the companies Inver GmbH Landshut, Alufinish GmbH & Co. KG Andernach and TQC GmbH Hilden.



## 5 From the work of the quality committees

### Aluminium quality committee and steel quality committee – material licence

A simplification was worked into the revision of the quality guidelines for the material licence of aluminium and steel. In future it will be possible to obtain a joint licence for both substrates. The tests which are independent of the substrate are only carried out once and the tests which are substrate-dependent are carried out on both metals.

#### 5.1.1 Aluminium quality committee

- Alternative pre-treatments

- Oxilan 0510 from Chemetall GmbH, Frankfurt

This product obtained its final approval for the pre-treatment of aluminium and subsequent coating with powder paint following the successful external three-year test in Hoek van Holland. The results of the liquid paint are still outstanding.

- Bonderite M-NT 400 (previously Alodine 400)

Samples coated with powder paint were subjected to external tests in 2004. Following the 3-year external test period to obtain the licence, the samples were left on the stand in Hoek van Holland. After what is now 10 years, the samples exhibit no signs of corrosion.

- Adhesive tape for removal of the adhesive tape

Since no special adhesive tape is listed in the relevant standards for tests with adhesive tape removal, and both the test institutes and material manufacturers use different adhesive tapes, consideration was given to prescribing a uniform adhesive tape with the following result: everyone will continue to use the tape they have used up until now. In the case of a dispute, the tests will be repeated using "Tesafilm 4122" as a reference tape.

- Mortar test

The mortar test in accordance with EN 12206-1 and the mortar test in accordance with QR AL 631 may lead to different results due to the mortar used. A test with 2N sodium hydroxide should be incorporated into the revision of the quality guidelines as a potential alternative test. This test can also be carried out easily by coaters. A test procedure is being prepared.

- Instructions for testers

The instructions for testers are currently being revised. They will be presented at the tester meeting in early 2015.

- Material tests

The results from Florida of the external test in April 2013 with colour deviation (approx. 60 samples) have been assessed, as in previous years, by a working group of quality committee members and material manufacturers on 29 July 2014 in Krefeld.



- AASS/FFC tests

The form for in-house monitoring will be renamed to the "Form for checking AASS/FFC tests". Under this name it will be sent again to the corresponding member companies and in future will be attached to the test report.

### 5.1.2 Steel quality committee

- Prolongation test for the approved coating materials in the area of steel  
 On request of the material manufacturer, in the course of the prolongation test, the neutral salt spray test is extended from 480 h to 750 h and a scratch test is also carried out.

The licence of the systems then also conforms to the new DIN EN 13438 "Paints and varnishes - Powder organic coatings for hot dip galvanised or sherardised steel products for construction purposes"; German version EN 13438:2013 if the prolongation tests have been passed.

## 6 Training courses on 3 and 4 June 2014 in Düsseldorf

- 3 June 2014 - Surface pre-treatment

At the beginning of June, the English-speaking training course with a focus on surface pre-treatment took place at the company Henkel in Düsseldorf.

The 21 attendees from members from Lithuania, Estonia, Finland, Sweden, Denmark and the Netherlands took a theoretical and practical part. Above all practical knowledge on the subjects was conveyed:

- Monitoring of the pre-treatment processes using titration
- Characterisation of conversion layers using photometry
- Gravimetric determination of layer removal and conversion layer weight
- Sample preparation for corrosion tests and mechanical tests and their evaluation.

We would like to thank Henkel for the support with this training course.



- 4 June 2014 - Measuring technology

The training course with a focus on measuring technology took place at the beginning of June in Düsseldorf.

The 25 members participating completed a theoretical and practical part. Above all practical knowledge on the subjects was conveyed:

- Layer thickness measurements of steel, galvanised steel and aluminium
- Physical tests
- Furnace curves – measuring and evaluating
- Gloss measurement, cross cut

We would like to thank TQC for the support with this training course.



## 7 Aluminium 2014, Düsseldorf – 7-9 October 2014

### COMPETENCE CENTRE SURFACE TECHNOLOGY

Use the opportunity to experience the anniversary edition of the Aluminium exhibition, the world's leading exhibition on the material and the industries that use it. The trade fair will take place from **7-9 October 2014** in Düsseldorf. For exhibitors from the area of surface treatment, there is something special on offer.

The Competence Centre Surface Technology offers your industry an attractive presentation platform at Aluminium 2014. With over **1000 exhibitors from 50 countries** and **25,000 visitors from around 100 countries**, the exhibition is the world's largest venue for the aluminium industry. This is where every two years you meet your target group from all areas of the application of aluminium, such as construction, automotive and transport, mechanical engineering and plant construction. The **Competence Centre Surface Technology** is a representative joint stand and is located centrally in Hall 13 in the middle of the flow of guests.

Please find all the details on the attached fact sheet. You can find more information on the trade fair at: [www.aluminium-messe.com](http://www.aluminium-messe.com).

## 8 General meeting on 7 and 8 May 2015 in Wiesbaden

The 20th Annual General Meeting of GSB International will be held at the beginning of May 2015 in Wiesbaden.

The invitation and the programme will be sent to members closer to the time.

## 9 “We support GSB”



This new logo is available to our supporting members. It expresses a clear commitment to high quality.

You can obtain master copies from the Düsseldorf office.

## 10 Banner advertising and reference photos on the GSB website

Capacity permitting, we offer our members the opportunity to advertise on the GSB homepage. All we need for this is a logo as a JPEG file.

The cost is €150.00 for three months.

## 11 Training courses

- **Building projects: from enquiry to execution**

Location:	Bielefeld
Date:	On both 14 October 2014 and 15 October 2014
Language:	German
No. of participants:	12

- **Process assurance with the right measurement technology**

Location:	Rotterdam
Date:	19.02.2015
Language:	English
No. of participants:	25



## 12 GSB dates

**21.10.2014**

Board meeting in Wiesbaden

**24.11.2014**

Meeting of the Aluminium Tests Working Group in Düsseldorf

**25.11.2014**

Meeting of the Aluminium Quality Committee in Düsseldorf

**20.01.2015**

Tester meeting in Schwäbisch Gmünd

**20.01.2015**

Meeting of the Tests Working Group in Schwäbisch Gmünd

**20.01.2015**

Meeting of the Steel Quality Committee in Schwäbisch Gmünd

**21.01.2015**

Meeting of the Aluminium Quality Committee in Schwäbisch Gmünd

## 13 Events

**23.09.2014**

**GDA seminar**

**“Technology of Extruded Aluminium Profiles” in Düsseldorf**

[www.aluinfo.de](http://www.aluinfo.de)

**7-9 October 2014**

**“Aluminium 2014” 10th World Trade Fair and Conference**

[www.aluminium-messe.com](http://www.aluminium-messe.com)

**23 / 24.10.2014**

**GDA seminar “Aluminium and its alloys” - an introduction for technicians and traders  
in Clausthal-Zellerfeld**

[www.aluinfo.de](http://www.aluinfo.de)

**25 / 26.11.2014**

**GDA seminar**

**“Surface Treatment of Aluminium” in Düsseldorf**

[www.aluinfo.de](http://www.aluinfo.de)

07 / 08.05.2015

## GSB general meeting in Wiesbaden

[www.gsb-international.de](http://www.gsb-international.de)

### 14 Material and member lists

The new website of GSB International has been online since the beginning of June 2013. The lists that used to be enclosed can be downloaded from the website. If there are changes, the lists are updated at the end of the month.

