

## Introduction

An electronic module is only suitable for a specific purpose if it guarantees safe function for a defined time. A large number of modules are installed in the terminal devices without protective coatings and operate fault-free throughout their entire service life. In an increasing number of cases, the module is used with greater electrical sensitivity or even under difficult conditions. The safe function of an assembly is then only ensured by means of a protective coating.

In the German-speaking area, there is only the GfKORR guideline for the application and properties of a protective coating available. The GfKORR working group "Corrosion protection in electronics and micro engineering" produced this guideline in cooperation of designers, producers, coaters and users of electronic construction groups.

The aim of the seminar is to teach the participants about this guideline and the collected knowledge from the working group, so that a comprehensive and fundamental understanding of coatings and their possible applications for the functionality of electronic assemblies is achieved.

## Target Groups

Production engineering, quality assurance, process technology, analytics, design and construction as well as all users

## The GfKORR

GfKORR - Society for Corrosion Protection is a federation of corrosion experts from industry and academia working in all fields of corrosion science with the aim of avoiding corrosion and its negative consequences.

Corrosion and the consequential damage of corrosion causes annual costs in the billions in Germany alone, whereby almost all branches of industry and economic sectors are affected. If, in addition to direct losses, the consequential costs resulting from production or performance losses are also taken into account, the overall economic damage amounts to more than 4% of the gross national product.

In order to enable effective corrosion control, GfKORR is dedicated to promoting causal systematic research and efficient knowledge transfer in all areas of corrosion.

## For further information please contact:

**GfKORR – Gesellschaft für Korrosionsschutz e.V.**

Theodor-Heuss-Allee 25

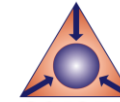
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Tel.: 069 / 75 64 - 360 / - 436

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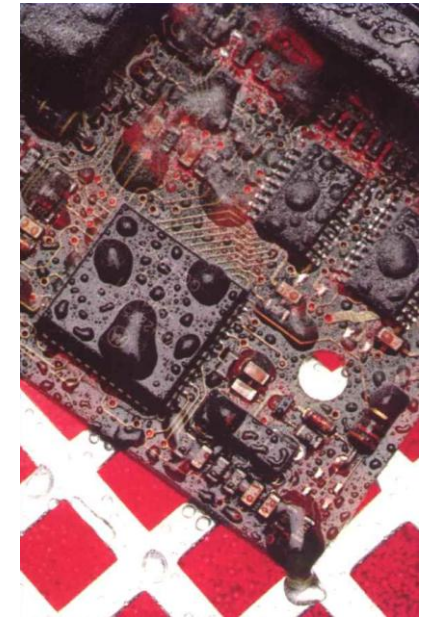
Web: [www.gfkorr.de](http://www.gfkorr.de)



**GfKORR – Gesellschaft für Korrosionsschutz e.V.**

## Seminar

### Application and Utilisation of Protective Coatings for Electronic Assemblies



25 – 26 June 2019

**ZESTRON INGOLSTADT**  
Bunsenstr. 6, 85053 Ingolstadt

**ZESTRON**  
ACADEMY

## Programme – 25 June 2019

- 10.00 Welcome and introduction of participants**  
Dr.-Ing. Helmut Schweigart  
Dr. O.K. Wack Chemie GmbH, Ingolstadt, Germany
- 10.30 Requirements of protective coatings for use on assemblies**  
General requirements, requirements for environmental impact, regulations for protective coatings  
Beth Turner  
Electrolube, Leicestershire, United Kingdom
- 11.15 Classification of protective lacquers**  
Subdivision according to the binder or solvent, subdivision according to drying or curing mechanism, subdivision according to layer thickness  
Jens Bürger  
ELANTAS Europe GmbH, Hamburg, Germany
- 11.50 Lunch**
- 13.00 Film properties of protective coatings**  
Mechanical, electrical and thermal properties, condensation, water absorption and water vapour permeability, thermal resistance, flexibility (modulus of elasticity) and CTE  
Beth Turner  
Electrolube, Leicestershire, United Kingdom
- 14.00 Impact of the assembly on protective coatings**  
Base material, assembly or printed circuit board layout, solder resist, soldering materials and parameters, drying parameters, keeping and uncovering areas  
Jens Gruse  
Stannol GmbH & Co. KG, Velbert, Germany
- 15.00 Coffee Break**
- 15.30 Surface and preparation prior to protective coating**  
Requirements for module cleaning, decision on cleaning, minimum surface cleanliness before protective coating, measurement / analysis of ionic impurities, implementation / optimization of cleaning processes  
Helmut Schweigart  
Dr. O.K. Wack Chemie GmbH, Ingolstadt, Germany

- 16.30 End of first day**
- 18.30 City Tour**
- 19.30 Dinner in a Bavarian local restaurant**

## Programme – 26 June 2019

- 09.00 Welcome and summary of day 1**  
Dr.-Ing. Helmut Schweigart  
Dr. O.K. Wack Chemie GmbH, Ingolstadt, Germany
- 09.15 Application procedures for protective coatings**  
Subdivision of the application processes, application by brush, coating or spray can, application by spraying, dipping, flooding or spraying process, automatic and selective coating in casting process, application by dispensing or vacuum process  
Gerd Schulze  
Nordson B.V., Maastricht, Netherlands
- 10.15 Coffee Break**
- 11.00 Handling of protective lacquers**  
Requirements for coating rooms and equipment, monitoring of processing parameters, contamination, maintenance of immersion systems, aging of protective coatings, environmental protection during protective coating  
Jens Bürger  
ELANTAS Europe GmbH, Hamburg, Germany
- 11.50 Lunch**
- 13.00 Prevention of typical coating defects**  
Application of excessive layer thicknesses, double coating, early hermetic encapsulation of coated printed circuit boards, avoidance of defects and typical abnormalities in protective coatings  
Jens H. Klingel  
KC Kunststoff-Chemische Produkte GmbH, Frielzheim, Germany
- 14.00 Coating inspection methods**  
General proof of the protective coating, verification of climate resistance, verification of the coating result  
Gerd Schulze  
Nordson B.V., Maastricht, Netherlands
- 15.00 Coffee Break**

- 15.30 Repair of coated assemblies**  
Paint stripping of assemblies, sound soldering of coatings, repair coating  
Jens H. Klingel  
KC Kunststoff-Chemische Produkte GmbH, Frielzheim, Germany
- 16.00 Comparison of the guide to IPC-Handbook**  
Dr.-Ing. Helmut Schweigart  
Dr. O.K. Wack Chemie GmbH, Ingolstadt, Germany

## 16.30 Summary and end of seminar

Unforeseen program changes are reserved.

### Registration

For organisational reasons, please send your registration no later than 7 June 2019 to:

GfKORR - Gesellschaft für Korrosionsschutz e.V.  
Theodor-Heuss-Allee 25, 60486 Frankfurt / Main  
Phone: +49 (0)69 7564-360/-436, Fax: +49 (0)69 7564-391  
E-Mail: gfkorr@dechema.de, Web: www.gfkorr.de

### Participation fees \*)

Members of GfKORR	€ 795,-
Non-Members	€ 815,-
Students (under 35 years)	€ 150,-

\*) no VAT requested according to § 4.22 UStG, registration fee may include Business Package with VAT

The registration fees include the guidelines for the Utilisation and Fabrication of Protective Coatings for Electronic Assemblies, list of participants, lunch and beverages during breaks.

**An exhibition of devices, products and services in the thematic context of this event is possible on request.**

### Conditions of participation

The receipt of the registration is considered as binding confirmation of the participant. Upon receipt, you will receive confirmation and an invoice for the order due. Registered participants can cancel in writing free of charge no later than 15 June 2019. After this date 80% of the participation fee will be charged. In case of absence or cancellation of participation, the full participation fee is to be paid. Furthermore, you may nominate a substitute participant.

**Please send registration to:**

**E-Mail: [gfkorr@dechema.de](mailto:gfkorr@dechema.de), Fax: +49 - (0) 69 - 7564 391**

GfKORR – Gesellschaft für Korrosionsschutz e.V.  
Theodor-Heuss-Allee 25  
60486 Frankfurt / Main

## **Registration**

### **Application and Utilisation of Protective Coatings for Electronic Assemblies 25 – 26 June 2019**

ZESTRON INGOLSTADT, Bunsenstr. 6, 85053 Ingolstadt

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Title / First Name / Surname:

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Company:

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Street:

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Postcode, City:

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Phone:

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E-Mail:

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Datum:

	(please mark)
- GfKORR Members	€ 795,-
- Non-Members	€ 815,-
- Students (under 35 years)	€ 150,-

#### **I would like to book an exhibition stand and would like further information.**

Registered participants can cancel in writing free of charge no later than 15 June 2019. After this date 80% of the participation fee will be charged. In case of absence or cancellation of participation, the full participation fee is to be paid. Furthermore, you may nominate a substitute participant.

I have been informed about the privacy policy for the usage of this service. I have also been informed on my right to object to the use of my data at any time.  
(for full details click the link: <http://www.gfkorr.de/datenschutz.html>).