

Online Masterclass: Refreshing and advanced coating knowledge!

In collaboration with **Hochschule Niederrhein**, the NVVT organized for you an unique opportunity to refresh your coating knowledge and get to know the latest technology in coating technology and testing. Learn from these experts about innovative technologies, advanced testing as well as digital tools and explore together how this can be helpful to boost your R&D. It's an online event, but there is room for networking in between the lectures. Join this session with us, and feel free to forward this to colleagues as well!

Date: September 8th, 2026

Platform: Microsoft Teams

Duration: 12:00 - 16:00

12:00 - 12:45: Session 1

Topic: Fundamentals of Pigments and Millbase Formulation

Presenter: Christian Schmitz

Description:

In this session, we will discuss the most important raw materials for an optimal millbase formulation. Since pigment grinding is the most time- and energy-intensive step in the manufacturing process, stabilization and flow properties must be adjusted accordingly. The manufacturing process and paint formulation are intrinsically linked from a technical perspective.

Key Points:

- Adjusting flowability for pigment-rich millbases
 - Role of dispersing agents & particle surface properties
 - Enhancement of Manufacturing Process Efficiency
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12:45 - 13:00: Q&A Session

A 15-minute Q&A session for attendees to ask questions about the previous session.

Tip: Use the chat feature to share thoughts or ask questions in the meantime!

13:00 - 13:45: Session 2

Topic: Modern Methods in Coatings Analysis

Presenter: Michael Dornbusch

Description:

Quality assurance throughout coating formulations and application is critical to understand coating properties and failure analysis. The presentation will demonstrate how modern spectroscopic methods enable the early detection and analysis of coating properties while providing deeper insights into their underlying causes.

Key Points:

- Common spectroscopic tools and their applications for coatings
 - Electrochemical tools for corrosion analysis
 - Combination of mechanical and spectroscopic methods – no rocket science
 - Advanced methods
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13:45 - 14:00: Q&A Session

A 15-minute Q&A session for attendees to ask questions about the previous session.

Feel free to use the chat feature to engage with the presenters.

14:00 - 14:30: Session 3

Topic: New Approaches to Dispersant Selection for Steric Stabilization of Pigment Dispersions

Presenter: Christian Schmitz

Description:

This session will present the role of adsorption and wetting processes involving supporting additives in the pigment stabilization process, based on the current state of research. The presentation introduces current research at the Hochschule Niederrhein on polarity, intermolecular interactions, adsorption processes, and alternative polarity scales beyond the well-known Hansen solubility parameters.

Key Points:

- Mechanisms of adsorption and particle stabilization
- Surface properties of pigment particles
- Polarity scales describing compatibility and surface interactions

14:30 - 14:45: Q&A Session

A 15-minute Q&A session for attendees to ask questions about the previous session. Take the time to discuss and interact with the experts!

14:45 - 15:15: Session 4

Topic: Non-toxic, Sustainable Coatings

Presenter: Michael Dornbusch

Description:

This session will present new approaches to alternative cross-linking technologies for sustainable coating systems. For example, oligomeric binders based on phytic acid can be developed for the cross-linking of epoxides and polyols.

Key Points:

- REACH, Reason for all
- Common sustainable resins, additives and coating formulations
- Challenge: sustainable corrosion protective coatings is solved

15:15 - 15:45: Q&A Session

Join the live Q&A session where you can interact with the presenters and ask any lingering questions.

Tip: Use the "Raise Hand" feature if you'd like to ask a question live or post your questions in the chat for discussion.

15:45: Closing Remarks

A brief recap of the key takeaways from all sessions and a thank you note for participating in the event.
