

EC

European Coatings SHOW DAILY 2009



SHOW AND CONGRESS DAILY 1 | www.european-coatings-show.com

31 March 2009

Nuremberg: Coatings Mecca

Industry fuels innovation at global trade show and conference



The European Coatings Show is the undisputed starting point for gazing into the future of the paints and coatings industry

The coatings industry thrives on technological innovation. The premiere tradeshow for the international paint and coatings industry, the European Coatings Show plus Adhesives, Sealants and Construction Chemicals, opens its doors in Nuremberg today.

This highly-anticipated event provides coatings professionals from around the globe with an unparalleled

overview of the most exciting developments happening in the industry today. Representatives from around 800 organizations spanning more than 40 countries are gathering at one of Europe's leading exhibition centers, Congress Center Nuremberg, to show off their latest innovations, exchange ideas and network with colleagues from around the world.

Over the course of three days, the exhibition floors will bus-

tle with activity as exhibitors share their most groundbreaking contributions to the coatings marketplace both at eye-catching stands and through individual presentations. Experts boasting in-depth product knowledge will be on hand at every booth to share their insights and provide ideas to solve a wide variety of complex, technical issues. Meanwhile, company representatives will give 20-minute speeches throughout

the event about their top new products, current market trends and novel future applications for highly sophisticated raw materials.

Running in tandem with the tradeshow, the European Coatings CONGRESS brings together academic and industry experts from close to 120 companies and research centers from around the globe to discuss a wide variety of topics spanning everything from coatings, printing inks

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and adhesives & sealants to construction chemicals, production technologies and coatings-specific academic research.

Europe's leading research meeting for the coatings field kicked-off yesterday with tutorials, workshops and a plenary session, featuring a welcome address by Dr. Sonja Schulte of the Vincentz Network, keynote presentations by Dr. Neal Williams of Akzo Nobel and Dr. Dirk Mestach of Nuplex Resins. In addition, Dr. Schulte presented this year's European Coatings AWARD to Rohm and Haas' Dr. Zhenwen Fu.

"The European Coatings Show and CONGRESS is the perfect place to catch up on the latest industry trends," says Friederike Plasswich, Head of Events, Vincentz. "The future of the coatings industry starts here."

European Coatings CONGRESS

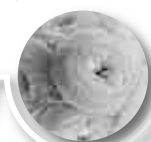
Europe's leading congress has a lot to offer this year, too. Some 26 sessions will see eminent researchers from industry and academia presenting their latest innovations and defining tomorrow's trends. Among them, Dr. Neal Williams, AkzoNobel and Dr. Dirk Mestach, Nuplex Resins BV. At yesterday's opening of congress, they provided a glimpse of what the future holds for the coatings industry in their papers entitled "What's smart, thin and green?", "Coatings of tomorrow!" (Williams) and "Resin technology challenges beyond 2010" (Mestach).

Several hundred experts from around the world are expected to attend the sessions, which boast some 160 presentations by 31 companies.



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STAND 533, HALL 7



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Visions of future coatings technology

Special session "Science today – coatings tomorrow" will present and discuss recent research findings



Prof. D. Claus Eisenbach,
Research Institute for Pigments
and Coatings (FPL)

What might be future developments in coatings systems and coatings technology? In the special session "Science today – coatings tomorrow", the audience will get an impression of basic research that may lead to applications in the field of coatings. Chairman Prof. D. Claus Eisenbach, Research Institute for Pigments and Coatings (FPL), Germany, gives an overview.

Globally renowned academics in the field of polymer and materials science will introduce their recent findings, take an inspiring deeper look

into the molecular interactions in polymers and coatings, and present their visions of the technological future of organic coatings. Common to all contributions of this session are molecularly tailored systems, sometimes mimicking mother nature, and novel facets of nanoscale features and surface properties. These topics will be addressed:

• Nanoparticles result from creative heterophase step growth polyreactions. Which could be the benefits of employing such particles for different applications

ranging from coatings and adhesives to cosmetics and biomedical applications?

• Polymers with charged polyelectrolyte stickers or telechelic "de novo" proteins exhibit an amazingly rich dynamic behaviour in aqueous solution. How can this be used in controlling the rheology of waterborne coatings?

Surfactants and ions

• Surfactants and ions are powerful way to manipulate the properties of surfaces.



Source: Nano-X-GmbH

The presence of surfactants and/or ions distinctly affects attractive and repulsive forces. Which practical consequences does this have for the stickiness and lubricity of modified surfaces?

• Surfactants and ions are powerful way to manipulate the properties of surfaces. They can be used in controlling the rheology of waterborne coatings. They can be used in controlling the rheology of waterborne coatings.

set of building blocks to develop surfaces with precisely controlled properties. In a bio inspired synthetic approach, the wetting of surfaces can be controlled by precisely tuned surface chemistry and well defined topography. Where are the limits of the ultimate performance of such surfaces? • Surfactants and ions are powerful way to manipulate the properties of surfaces. They can be used in controlling the rheology of waterborne coatings. They can be used in controlling the rheology of waterborne coatings.

Hall 9, Stand 9-370

Bio inspired approach

• Surfactants and ions are powerful way to manipulate the properties of surfaces. They can be used in controlling the rheology of waterborne coatings. They can be used in controlling the rheology of waterborne coatings.

New exhibitors at ECS



Jürgen Bulacher,
Pin Floe

"Pin Floe is a producer of additive fibers and flocking fibers. We are specialized in the field of electrostatic flock fabrication and technical fibers based on textile raw materials. At the ECS 2009, we are looking forward to getting into contact with manufacturing companies that are processing our raw materials. On the show floor we will present samples from our current product range of fibres."

Hall 9, Stand 9-432

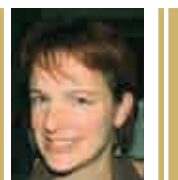


Michael Richardson,
Aquadispersions Ltd.

"A privately owned company, based in the UK, Aquadispersions manufacture 100% solvent free waterbased additives for the coating, adhesive and inks markets. We are exhibiting for the first time to showcase our additive portfolio for coating formulators, which offers easy to disperse, highly effective chemistries for a multitude of applications. Our decision to exhibit at the coating show demonstrates our commitment to innovation in compliant technologies. The ECS gives us the opportunity to introduce our products to the global coatings community."

We are specifically promoting our new Aquanox UV stabilisers along with our extensive range of flame retardant additives. Other products of focus for us are our Aqualink blocked isocyanate crosslinkers, and the AquaRes portfolio. New to the AquaRes portfolio are our heat activated resins for heat seal coating applications."

Hall 9, Stand 9-629



Françoise Baudouin,
sprl Epocat bvba

"Epocat is a young, rapidly growing company, specialised in and focused on epoxy systems, mainly for the paint and building industries. We design and produce E-Pos

specialty epoxy resins, D-Cure curing agents for epoxies and offer also a range of E-Lix reactive diluents for a variety of applications such as civil engineering, coatings, adhesives, electricals/electronics or composites. The force of our working team is a combination of expertise based on many years of experience and of extreme flexibility in responding to specific customer needs by e.g. conceiving new products accordingly. Along this line, we do produce specialty blends and develop environment friendly products. After having established a market position in specific countries, we expect from the ECS that it will give us the opportunity to make ourselves more known and to realise a further growth of our activities in Europe."

Hall 7, Stand 7-145

What? When? Where?

TODAY'S EC SHOW AND CONGRESS HIGHLIGHTS

European Coatings Show
plus Adhesives, Sealants, Construction Chemicals
09.00 - 18.00 h Halls 6-10

Product presentations

10.10 - 16.50 h Hall 6, Stand 6-13
09.50 - 16.50 h Hall 7, Stand 7-419
10.10 - 16.50 h Hall 9, Stand 9-351

European Coatings CONGRESS
09.00 - 12.30 h CCN Ost

Parallel Sessions 7-12

14.00 - 17.30 h CCN Ost
Printing Inks I
Waterborne Systems I
Adhesives & Sealants I
Architectural Coatings I
EU-Project NAPOLEON
Novel Materials

Parallel Sessions 13-18

Printing Inks II
Construction Chemicals
Adhesives & Sealants II
Waterborne Systems II
Polyurethanes
Measuring & Testing

Reunions

Graduates and past students of the Hochschule Niederrhein will be holding reunion at the Hochschule's stand 9-855, hall 9, at 16.00 h

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Gazing into the coatings crystal ball

Congress presentations highlight future opportunities and challenges

Even in economically turbulent times, innovation is key to future success. This was the core message of Dr. Sonja Schulte's welcome speech at the start of the 2009 European Coatings CONGRESS yesterday afternoon. "Now is time to prepare for the successes of the post-recession environment," said Schulte, Science & Technology Managing Editor, European Coatings JOURNAL. "Now is the time to be even more innovative."



Riveted delegates listen to the keynote presentations

Source: Heiko Stahl

Keynote speakers Dr. Neal Williams, Research Associate, Akzo Nobel Decorative Paints Division Research Group, and Dr. Dirk Mestach R&D Manager for Decorative and Industrial Resins, Nuplex Resins BV, Holland, underscored Schulte's words with their presentations highlighting some of the future prospects and issues facing the coatings industry. Williams' presentation framed the economic downturn and

increased environmental regulations currently affecting the marketplace as opportunities for future innovation. Outlining some of the most promising developments in the areas of high-performance, sustainable and easy-use coatings, the presentation covered a wide range of emerging technologies and examples from across the industry. These included self-

cleaning nanoscale surface chemistry and morphology coatings, barrier coatings, scratch-resistant coatings, hygiene coatings, light- and space-enhancing decorative coatings, self-contained powder rolling application units for interior paints and VOC-free car refinishing films. Williams finished his talk by looking at some of the main issues currently being tackled

by the industry as it moves towards creating more sustainable products and solutions, such as VOC regulation compliance and recycling. "These are very challenging times for our industry," Williams said. "But I remain optimistic. Those companies that develop innovative solutions in the downturn will thrive in the upturn." Delivered from the perspective of a raw materials supplier,

Mestach's highly technical presentation outlined some of the latest developments in the field of resins manufacture and reinforced Williams' words about innovation. Like Williams, Mestach saw the demand for higher performance coatings that reduce energy consumption and comply with increasingly stringent environmental regulations as a driver of innovation dur-

ing economically challenging times. "The coatings industry and its suppliers are facing a world-wide recession. We all need to invest in innovation to survive," said Mestach. "Lately, we have seen strong developments in the field of resin technology but considerable effort is still required to develop these into real, commercially viable products."

The European Coatings CONGRESS 2009 would like to thank all sponsors for their support!



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COMPETENCE IN COLOR

Scientists scoop top prize for innovation

A team of scientists led by Dr. Zhenwen Fu from the Paint and Coatings Materials Division of Rohm and Haas has been selected as the winner of the 2009 European Coatings AWARD, one of the industry's most prestigious prizes honoring coatings research innovation.

The team's project, outlined in a conference paper entitled "Design Diffusion Technology: A Paradigm Shift in Film Formation," offers a revolutionary new strategy for simultaneously enhancing film formation, reducing VOCs and accelerating hardness-related property development for high glass transition (Tg) polymers used in waterborne industrial coatings. The new technology offers a wide variety of solutions for the wood, metal and plastics finishing markets. The award selection committee chose Rohm and Haas' project from a pool of more than 200 papers submitted for this year's Congress. The committee assessed nominated papers according to several criteria including scientific content, degree of innovation, educational value and commercial significance.



AWARD winner Dr. Zhenwen Fu proudly shows off his prize Source: Heiko Stahl

"Several papers were close contenders for the award. But Dr. Fu's paper scored consistently high across all criteria," says PRA consultant and award selection committee member, David Sykes. "A striking feature of this paper is the focus on the mechanism of solvent release from a coating. This adds significantly to the sequential-feed polymerization technology platform that has been studied extensively by many resin producers over the past 20 years. We anticipate that this breakthrough will make a significant contribution to the industry shift from solvent- to waterbased coatings."

A distinguished scientist within the Paint and Coatings Materials Division of Rohm and Haas, Fu accepted the €2,000 AWARD on behalf of his team from Dr. Sonja Schulte, Managing Editor, Science & Technology, European Coatings JOURNAL, at the opening plenary session of the Congress. "Necessity is the mother of invention. The project was fuelled by the need to drive sustainability and cost effectiveness without compromising performance," says Fu. "This project is just a tiny piece of Rohm and Haas' long history of innovation and teamwork."

Eco- and cost-friendliness

What's driving research in the coatings industry

The European Coatings CONGRESS in Nuremberg brings together international experts from the coatings industry. This concentration of expertise offered the editorial team of the European Coatings JOURNAL an unique opportunity to conduct an on-line poll of congress participants in the run-up to the event. The team wanted to sound out the strategies which are being pursued in the current difficult economic situation, to see what is driving current R&D programmes and to find out which technologies the coatings industry will be using in the future.

Some 20% of pre-registered conference delegates took the time to participate in the poll, which was launched two weeks ago. When asked about strategies concerning R&D activities being implemented by their companies in the current economic climate, 65% of respondents said that the budget is unchanged, 30% are investing more in research and development and only 4% are spending less in this area. Asked about strategies in basic research, 70% of respondents indicated that there has been no change, almost 17% are cutting back in this area while 13% are boosting their activities. As for collaborative research, 58% are pressing ahead as before, while 15% are trimming and 17% are increasing their collaborative research. It would seem then that, even in these times of economic turmoil, investments are still being made in research and development.

The answers to the question "What are the main influences behind your R&D programme" revealed a clear pattern. The key drivers of R&D programmes in the coatings industry are cost reductions and the development of environmentally friendly systems. Of the 70 respondents, cost reductions and waterborne technology were each cited 46 times as the chief influence. They were followed by VOCs, which were mentioned 44 times.

Further down the scale were nanotechnology and UV curing (27 replies each). Smart coatings and bio-based raw materials are also topics in research and development.



Douglas Cusato,
Helvoet Pharma

"I liked the fact that the talks within the session on smart coatings were tailored to different industries. The leaders presented a lot of new ideas and concepts that will help to foster innovation within the marketplace. The selection of high-quality speakers and the accompanying written information makes this well-organised conference highly informative."



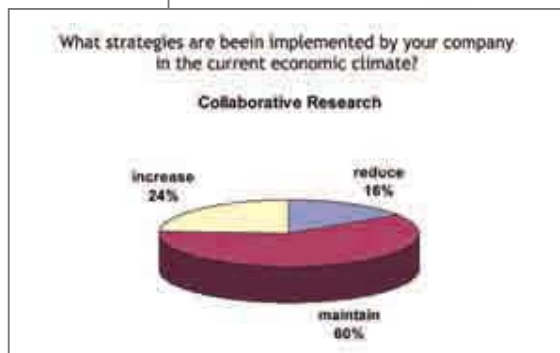
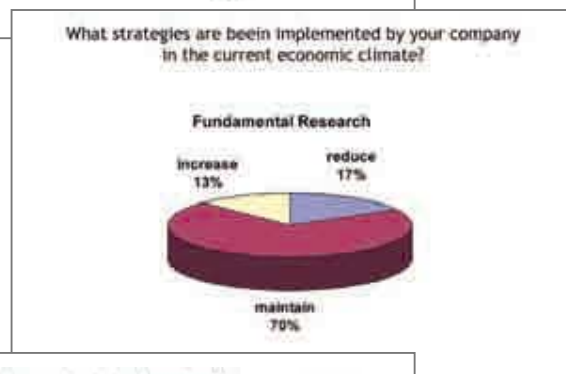
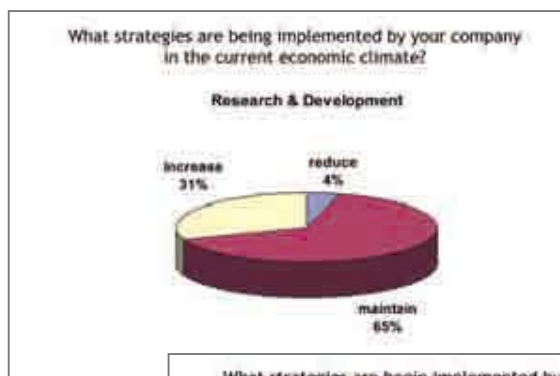
Dr. Olav Marstokk,
Jotun A/S

"I was very pleased to hear about the AMBIO EU-project. The latest development in the fields of carbon nanotubes opened my mind. While listening about hydrophilic-block polymers, I came up with ideas for other applications, such as concepts involving self-cleaning functionality. I will certainly discuss my new ideas with my colleagues."



Maarten J. Bijl,
TNO Science and Industry

"Nanoparticles for colouring pigments will play a major role in the future of the industry. I see great potential for developing more applications that incorporate nano-materials. Dr. Jonschker's fascinating session showed me better dispersing methods with results that can easily be reproduced. I am looking forward to implementing what I learned today in my job."

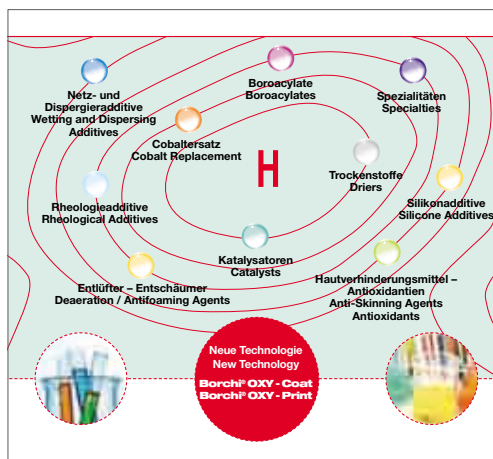


The majority of the companies will maintain their budgets for research and development

Amazingly, REACH doesn't seem to be influencing research and development activities to any great extent, for it only merited 18 citations. For most respondents, powder coatings apparently play only a minor role (6 responses). Where future technologies are concerned, the verdict was

clear: waterborne is the most important future technology (51 responses). Smart coatings and functional materials are deemed by a great many to be an important future technology (41 responses), as were – to a lesser extent – nanomaterials and high-solids (24 and 18 respectively). Participants

believed that powder coating is not an important future technology (8 responses). Solvent-borne coatings systems will tend to play a somewhat unimportant role in the coatings industry in the years ahead. Only five of respondents considered these to be an important technology.



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“Simplifying the raw materials base”

Source: Evonik

Performance of pigments depends on many factors



Dr. Thomas Rentschler
Merck KGaA

Dr. Thomas Rentschler, Merck KGaA, about trends, technologies and economies in pigments.

► It is important to control costs. Where can savings be made in pigments, without their performance being compromised?

Thomas Rentschler: When looking for savings potential, the first thing you do is to find a cheaper supplier. With pigments, the performance spectrum is determined not just by their coloristic and technical properties in the paint. Continuous reproducibility of all properties, global distribution, dependability of supply,

and service are also vital. If there are problems with the latter, cheaper does not always mean more economical. Coatings manufacturers can probably achieve further productivity boosts by simplifying the raw materials base for their pigments or by employing preparations. There are a number of advantages to using pigment pastes, such as simplified handling, better reproducibility, and less analytical outlay. A simplified raw materials base for effect

pigments was one of the reasons that we developed the color space concept for pearlescent pigments. It enabled the maximum colour space to be covered by the minimum number of raw materials.

► What is driving R&D at the moment?

Thomas Rentschler: Progress in pigments, too, is being dictated by the demand for improved price/performance ratios. Superior colour strength, filterability, and durability

outdoors as well as texture effects provide customers with new differentiation scope for customers, especially in the case of effect pigments. Functional pigments are also being targeted. These innovations serve to widen the spectrum for suppliers and users alike. Success here hinges on achieving a coordinated interplay of these new products in the applications matrix.

► What technological trends are you seeing in pigments?

Thomas Rentschler: Apart from the established pigment pastes just mentioned, functional pigments – whether nano-particles or encapsulated individuals – are on the threshold of implementation in many areas. OEM trend colours, and accordingly the associated technologies in plastics coatings, are making increasing inroads across all areas of the consumer industry.

Halle 9, Stand 9-521

Underground Nuremberg – in the bowels of the earth

Walking through Nuremberg you may miss various tourist attractions which are hidden in the bowels of the earth.

Having finished the sight-seeing tour around Nuremberg's churches, museums, gardens, and fountains, ECS visitors should also take a look underneath the surface.

The Rock Cellars

One of the largest rock cellars on the castle mountain has been opened to the public. Extending across four levels up to 20 metres below ground, there are around 25,000 square metres of rock cellars. These underground passages served in the 15th century to

provide water for the town and to store beer. A council decree in 1380 stipulated that only those brewers were allowed to serve beer who also had a cellar measuring at least 10 to 16 shoes (about 3 x 4.80 m). So, over the years, huge cellars were chipped out of the rock by hand with pick and chisel. A number of cellars and passageways were created this way in the early 19th century. Informative tours take place daily at 11:00 hours, 13:00 hours, 15:00 hours and 17:00 hours.

Historic art bunker in the castle

Some 24 metres deep down inside the castle mountain

is Nuremberg's most impressive bunker. Converted rock vaults here were used to keep Nuremberg's important art treasures safe and sound from the bombs of World War II. The daily tour held at 14:00 hours is followed by an audio-visual show.

Casemates and water adits

One of the most historic sights of Nuremberg is castle mountain, which is riddled with innumerable passages. Casemates – the defence passageways inside the Renaissance bastions of the Imperial Castle – provide access to the mediaeval rock passageways of the water adits. These top-

secret mediaeval adits, which are open to the public, served to supply the citizens with water and were still in use into the 20th century. A so-called water warden was employed to ensure they were properly maintained. Besides drinking water, the water adits supply the “Beautiful Fountain” in the main market. The water adits were first mentioned in 1460.

Casemates are passages from which the city moats could be bombarded. Tours are available daily at 16:00 hours from April-October. Info Sources: <http://nuernberg.bayern-online.de> Advance ticket sales and meeting point: Brauereiladen, Bergstraße 19

Contact:

Förderverein Nürnberger Felsengänge e.V.

Tel: +49 911 227066

info@felsengaenge-nuernberg.de

www.felsengaenge-nuernberg.de

Groups (including foreign languages) after reservation (max. 25 persons; casemates: max. 10 persons).

More information about Nuremberg attractions:

Tourist information in the Info Nuremberg at Künstlerhaus, opposite the main station

King Straße 93

Tel. +49 911/23 36 132

Monday to Saturday, all year round, 9:00-19:00 hours, closed on Sundays, open from 10:00 to 16:00 hours except during the Christmas market

Tourist information in the main market:

Hauptmarkt 18

Telephone 0911/23 36 135

Monday to Saturday, all year round, 9:00-18:00 hours clock, Sunday, May to October, 10:00-16:00 hours

Source: Marion/PIXELIO



Sight-seeing with audio-guides

Nuremberg to see, to hear and to marvel at – that is offered to you by various Audio-Guides.

Tom's Audio Guide for Nuremberg offers information about twenty attractions which are waiting to be discovered by you, completely without city guide and with no time pressure. You can put together your very own city tour, according to your

interests. All you need: our city map and a mobile phone.

Call the number stated next to the site on our city map. The length of the audio texts is 2 to 3 minutes. There is no additional cost for this service, just the connection fee to the local telephone line.

As an alternative, you can also download the audio files from the website www.nuernberg.de/internet/tomis_e/ and listen to them with an MP3 player. The audio files can also be downloaded at the

download stations in the Nuremberg Tourist Information Centres. To do this, you need an MP3 player with a USB connector. This service is also free of charge.

More info and download of the city plan at www.nuernberg.de/internet/tomis_e/

Nuremberg treasures

Audio-Guide leading through the historic old town of Nuremberg. Learn more about the origins of

Nuremberg's sights and their myths and legends. Including city map and MP3 player. Available at the Tourist Information Office, Hauptmarkt 18 and at the Tourist Information Office at the Nürnberg Info, Königstraße 93.

The Dürer Tour

This guided tour is different from any you may have experienced to date. A hand held computer with colour display screen and high-

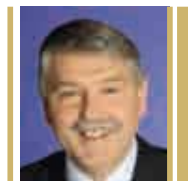
performance headphones provides clear directions as well as optional and additional information. Nuremberg was the first city to employ this state-of-the-art technology for an outdoor tour. A technical innovation and very much in the spirit of Albrecht Dürer himself: Available from the Albrecht Dürer House or the German National Museum (Germanisches Nationalmuseum): Tue-Sun 10 am-3 pm.

Source: www.tourismus.nuernberg.de

“Important: cost-performance ratio”

Additives expert on trends for future developments in the additives business

The cost-performance ratio and the synthesis of new active ingredients and new formulations with improved efficiency are fundamental for the development of new additives, says Dr. Gerald Kirchner, head of product development at Byk-Chemie GmbH, Germany.



Dr. Gerald Kirchner,
Byk-Chemie GmbH

► What are the trends for future product developments in the additives business?

Gerald Kirchner: The cost-performance ratio is certainly one of the most important criteria for the development of new additives. Secondly, the synthesis of new active ingredients and new formulations with improved efficiency is an on-going target in the business. In addition, new molecules and new materials with improved functionality and selectivity are under development. As an example, new products with significantly improved performance regarding viscosity, gloss, haze and transparency based on block copolymers could be made by different controlled polymerisation technologies (CPT). The effects of several products with different block structures and pigment-adsorbing groups lead to a better understanding of particle stabilisation according to the molecule structure.

Interesting properties

Hyperbranched amphiphilic polysiloxane derivatives can exhibit very interesting properties on surfaces, making them easy-to-clean, high-gloss, oil-repellent or anti-graffiti. These effects can be achieved by a single additive, even in waterborne formulations. Printability on plastics will also be improved by this type of additives. The features of different nanoparticles are wide-ranging. Today, the focus of research and development is on improvements in the area of mechanical reinforcement, anti-static properties and conductivity. Very interesting

results have been reported with carbon nanotubes. The right dispersion technique, in combination with suitable

wetting and dispersing additives, is one of the keys to acceptable results. To improve the wetting and dispersing

properties of pigments, new ways of pre-treatment of the pigments have already been introduced or are under inves-

tigation. With this new type of pigments, the energy consumption for dispersing could be considerably reduced without loss of efficiency.

► In how far is environmental friendliness an issue?

Gerald Kirchner: The issue of environmentally friendly

products is becoming increasingly important. Legal requirements in different countries and general public awareness of sustainability are stimulating the development of “green” paint systems and, as a consequence, of additives too.

Hall 7a, Stand 7a-205

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Forward thinkers

2009 European Coatings CONGRESS revs up with pre-congress tutorials

Renowned industrial and academic experts hosted nine pre-congress tutorials yesterday morning. Covering a wide range of topics, the well-attended seminars addressed key coatings technologies and applications.

Ciba's Dr. Kurt Dietliker and Dr. Katia Studer's radiation curing tutorial focused on the major applications of radiation curing systems, as well as binder materials used in typical radiation curing coatings and the parameters that determine their performance. In their workshop exploring the characteristic properties and performance of coatings-relevant standard polyisocyanates and polyol components, Simon Waddington of Dow Europe and Huntsman Polyurethane's Ian Rimmer examined which polyurethane combinations are suitable for which applications and why. The University of Surrey's Dr. Joe Keddie reviewed the basic physics of heterophase film formation in his tutorial. The session covered the mechanisms of film formation in waterborne coatings, how material (binder) properties translate into coatings performance properties in this process and the role of additives in waterborne clearcoats. Eindhoven University of Technology's Prof. Gijsbertus de With's

presentation on easy-to-clean coatings featured a review of the physical chemistry of surface tension as well as requirements for easy-cleaning. Attendees also learned about common test methods for measuring contact angles and surface tension and obtained an overview of the limitations

In this tutorial, Prof. Guido Wilke from University of Applied Sciences Esslingen also discussed the pros and cons of established pre-treatment methods. Bayer Material Science's Dr. Christoph Irle and Dr. Wolfgang Fischer led a tutorial on the basic materials and chemistries at work in

such topics as the typical buildup of multi-layered parquet coatings systems and industrial testing methods. In their flame retardants fundamentals seminar, Clariant Product's Dr. Adrian Beard and Volker Thewes explored the fundamentals of burning behaviour, flame retardant mechanism chemistries, fire tests and intumescent coatings. The tutorial also familiarized conference attendees with fire safety regulations as well as environmental and legislation issues (e.g. REACH.) Prof. Robert Akid of Sheffield Hallam University led a tutorial on the themes of corrosion processes and anticorrosive techniques. The seminar focused on electrochemistry as applied to corrosion and explored different corrosion processes as well as how corrosion problems occur. In their antifouling tutorial, Dr. Björn Dahlbäck and Prof. Magnus Nyden offered delegates a detailed scientific background on marine biofouling. The seminar covered the causes and effects of marine biofouling, as well as the performance of antifouling solutions. In all nine workshops, tutors encouraged questions and inspired discussions. See the side bar on this page to find out what attendees thought of the tutorials.



Concentration levels run high in the tutorials

of easy-to-clean-systems. The pre-congress tutorial on plastic coatings covered key plastics substrates, as well as their applications and coatings-relevant characteristics.

today's parquet coatings segment. The workshop covered solventborne, waterborne and UV curing coatings for both DIY and industrially pre-fabricated systems and addressed



Attendees enjoy the intense working atmosphere



Dr. Konstantin Siegmann, Zürcher Hochschule für Angewandte Wissenschaften

“Dr. Guido Wilke's pre-Congress tutorial was presented in a highly professional way. It focused mainly on organic components for plastic coatings. The content was very informative as the tutorial addressed many details, which the speaker presented in plain and understandable English. Attending was useful and of high value for me”



Markus Kass, KWH Mikra Ltd.

“My expectations of the tutorial by Dr. Christof Irle and Dr. Wolfgang Fischer were completely fulfilled. The session was very instructive. I learned about substrate and coating combinations as well as new test methods. Overall the tutorial gave me new ideas which will be useful in the future”



Goh Chia Li, PJI Contract PTE Ltd.

“The tutorial concerning the fundamentals of flame retardants interested me greatly. Learning about the basics was especially helpful. I received valuable background information regarding substrate and thickness combinations. Additionally, it was great to learn how to calculate the fire resistance of substrates.”



Camilla Kirk, Cembris Holding A/S

“The film formation tutorial led by Joe Keddie was very good. I received a high quality description of the chemistries involved when film is formed. Dr. Keddie also taught me new ideas about which film forms to choose between”



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"We can see fruits of our project"

AMBIO supports creation of nanostructured surfaces for the control of biofouling

Professor J.A. Callow (School of Biosciences, University of Birmingham) is the Coordinator of the EU-funded project AMBIO (Advanced Nanostructured Surfaces for the 'Control of Biofouling'). He comments on the anticipated outcomes and impact of the project.

► Please comment on the results of the AMBIO project you have gained so far.

J.A. Callow: The AMBIO project has now finished Phase 1 in which a range of surface nanostructuring methods were used to create experimental test surfaces with controlled and well-characterised physical and chemical properties at the nanoscale. Surfaces have been evaluated by rapid, laboratory-scale adhesion and biofouling assays with different types of biofouling organism. Theoretical and experimental studies on dynamic interfacial properties of test surfaces have been integrated with biological adhesion assays to provide a critical understanding of how anti-biofouling surfaces work at the nanoscale.

Phase 2 of the project

In Phase 2 the most promising test surfaces are being scaled-up and developed as practical coatings. In Phase 3 the most promising coatings will be evaluated in the field through quantitative, comparative trials involving coatings for the following end-uses: ship hulls and pleasure craft, membrane filters, aquaculture equipment, instrumentation, water inlets, heat exchangers.

► Can the coating industry benefit from these results?

J.A. Callow: The AMBIO project addresses a strategic need to strengthen S&T excellence in the application of nanosciences to help solve the applied problem of aquatic biofouling, within relevant European industry. Innovation is vital to coatings manufacturers who constantly reformulate their products to differentiate themselves from the competition. Innovation is especially important in the current legislative climate in which environmentally-benign products are increasingly sought. Emerging technologies, such as nanostructuring of coatings, will provide such a source of innovation. It

has been estimated that in 10 years from now, 30% of paint industry sales in Europe will rely on nanotechnology ap-

plications in so-called 'smart' coatings, including those destined for marine and freshwater applications. Already

we can see the fruits of the project in the form of a growing number of patent applications (5 at the end of Period

3) all of which specifically incorporate nano-solutions to coating development.

► Are there further effects caused by this project?

J.A. Callow: AMBIO has also encouraged partners to consider the business opportunities presented by the marine coatings market, in which they

had not previously been involved. The project also has impact in the area of training. The multidisciplinary nature of the project, plus specific training activities has ensured that the personnel involved are well trained in aspects of marine biology, surface characterisation and stability of marine coatings.



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A keyword: self-healing

Several presentations of the congress deal with self-healing properties

"Self healing" is a keyword – emerging in several lectures of the European Coatings CONGRESS. At yesterday's session on "Smart Coatings" Dr. Sudhakar Balijepalli, Dow Chemical Company, US, talked about new technology developments in view of self-healing coatings.

Dr. Luca Prezzi, SAFE Marine Nanotechnologies, Italy, presented a speech on self-healing corrosion protection through sol-gel technology in

the "Protective Coatings" session. In the following you'll find short summaries of the talks:

Self-healing coatings

Self-healing coatings are emerging technologies that employ smart materials. Such materials respond to external stimuli or adapt to circumstances just like one encounters in biological systems. In particular, a fundamental property of biological systems is their ability to heal

after a physical insult. While these processes are inherently complicated, simple prototypes have been adopted by scientists to tackle healing in material systems. Analogous and ingenious approaches have been developed to address the auto-response of a material to repair itself after it has been compromised.

In the paper, an overview of self-healing coating technologies was presented. Design requirements for coatings that are opposing were dis-

cussed in the context of a new approach to self-healing. Specifically, the material science of recovery, scratch resistance and acid-etch resistance were discussed for emerging materials to meet these requirements.

Self-healing corrosion protection

Today's steel surface technology is still based on concepts that date back into the 20th century and includes metallic

(galvanized steel), inorganic oxides layers (phosphates, chromates) or other weldable primers. Such layers are applied in industrial conditions and many layers are needed to overcome the problem of pinholes and pores. Today's surface technology is optimised for given substrates and involves difficult multiple layer applications as well as hazardous chemistry without taking advantage of those reactions that lead to the destruction of the interface.

The presentation showed that the presence of molybdates in organic-inorganic hybrid networks allows the entrapped "doping anions" to be released at a controlled rate. When such materials are used as coatings for ferrous metal substrates the molybdate anions migrate to the interface coating-metal providing an enhanced mechanism for the passivation of the metal substrate tough including self-repairing features into the polymeric network.

Source: KFM/PIXELIO

Adhesives and sealants: "Increasingly high standards"



Markus A. Meier,
Ciba Inc.

The increasingly high standards demanded in the vast adhesives and sealants market have led to advances in technology, products and solutions that are extending applications of adhesives and sealants still further, says Markus A. Meier, Ciba Inc.

Today, three main trends can be identified: the growth of specialty applications, the improvement of performance for existing applications, and the development of completely new technologies.

Specialty applications

Adhesives and sealants are being used more and more for specialty applications such as medical equipment and electronics. In some sectors, there is a trend toward replacing mechanical methods of fastening by adhesives, one of the advantages being that the stress impact is evenly distributed across a wider area.

In the medical sector, apart from traditional applications such as syringes, bandages and plasters, new specialty adhesives are starting to be used for wound treatment and fixing of implants. For such applications, they must be extremely stable and durable, as well as compatible with human tissue, and must therefore meet stringent legal requirements.

In the electronics field, adhesives and sealants are used for DVD bonding, and assembly of mobile phones and solar cells, for example. Other requirements in these applications besides durability and weather resistance are increased processing efficiency and high quality standards.

Performance

Performance standards are growing, especially where adhesives and sealants play a structural role. In the construction and transportation sectors, they must have strong and durable adhesion and cohesion characteristics, in order to make them resistant to light, to changing weather conditions and to physical impact. Special light stabilizers and antioxidants enhance their performance and prolong their life. In many applications, especially construction, interior furnishing and automotive interiors, there is a move toward components free from organic volatiles and reaction products.

This has renewed interest in hot melt, waterborne and reactive adhesive materials. Many of these applications require products with good adhesion to a variety of substrates, so high versatility is required in addition to high durability. The increasing trend toward biodegradable and renewable materials is leading to the development of new adhesives and sealants based on biopolymers for applications such as labels and flexible packaging.

New technologies

A third trend today is the development of new technologies to meet the demand for higher process and application effi-

ciency, sustainability and versatile new curing technologies. Latent catalysts and photoinitiators can enable light-activated reactive adhesive and sealant systems, including curing on demand. Photolatent catalysts such as photolatent bases are one of the key technologies of the future since they have numerous advantages over the standard chemical cross-linking process, including higher production efficiency due to a shorter curing cycle, fewer quality control procedures thanks to better cross-linking properties, and potentially better product performance of the end product.

Hall 7, Stand 7-557

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Trend towards milder solvents

Ongoing shift from solventborne to waterborne technologies in the printing inks industry



Ivo Lansbergen,
DSM NeoResins+

The market for printing inks has been deeply affected by the current economic downturn. Ivo Lansbergen, Business Director for the Adhesives and Graphic Arts market at DSM NeoResins+, the Netherlands, summarises key trends in this market segment.

Our market has seen big changes since the beginning of Q4 2008 in the light of the current economic downturn. Stocks have been run down and everyone has had to focus very hard on their cash flow. Indeed, businesses have come to see that rather than focusing on profit (and taking on debt to facilitate the pursuit of that prof-

it), they need to be focusing on cash flow at the moment. This is a different way of approaching business, and it calls for very tight credit control.

Environmental concerns and regulations

Environmental concerns and the regulatory framework are driving the ongoing shift away from solventborne to waterborne technologies. One-for-one replacement is not practicable, however. DSM NeoResins+ is leading the move towards the use of mild solvents such as ethanol for solventborne resins. At the same time, we are developing new types of waterborne resins which we hope will help to replace solventborne inks in printing on film in due course. There is a general trend in Europe and the USA towards the use of milder solvents in resins manufacture. In China, however, solvents such as toluene, which certainly can pose health hazards, are still being used by some manufacturers. We see it as part of

our responsibility to help the industry as a whole to move in the direction of using less potentially harmful solvents. This is particularly important in the field of printing inks for food packaging.

Current issue: food contact compliance

Food contact compliance is the issue for our industry at present. As consumers, we should all welcome this development, as it means that extensive efforts are being made to improve the safety of food and drinks. Another important innovation is the use of UV light for instant curing. This means that the paint dries very quickly after application, dispensing with the need for driers. UV curing reduces energy consumption and accelerates throughput times, facilitating faster and more cost-effective manufacture. It also has environmental benefits.

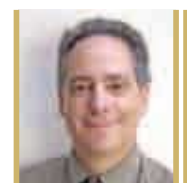
Hall 7A, Stand 7A-121



Source: Rainer Sturm/PIXELIO

"No one technology is perfect"

The current economic situation challenges the coatings industry. After Andrew Trapani blancing the different drivers can be a springboard for innovation.



Andrew Trapani,
Rohm and Haas, France

What are the most important current challenges in architectural paints and coatings?

Andrew Trapani: The current environment is challenging, cost-consciousness is increasing. However, legislation and sustainability remain driving forces; Consumers are more demanding than ever before. Our industry must balance these drivers. Those that use this as a springboard for innovation will come out stronger in the end.

What does your company have in store to produce environmental friendly architectural coatings?

Andrew Trapani: We have been developing innovative products for ever more environmentally advanced paints since 1953. In our 100th year of business, this tradition continues with a new hybrid technology for waterborne gloss and semi-gloss paints. Also,

our pigment-encapsulating binders and our opaque polymers help formulators balance cost savings, performance and sustainability.

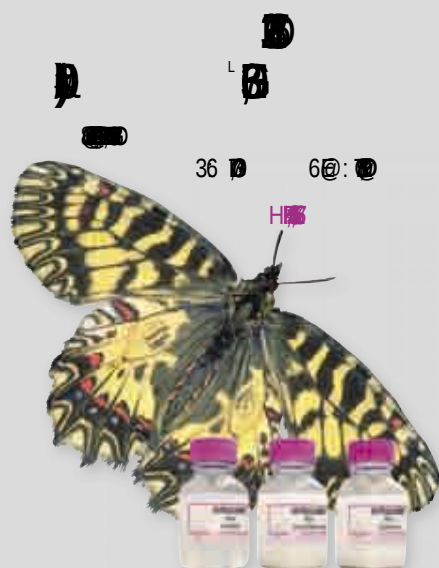
How do waterborne systems perform in comparison to solventborne systems?

Andrew Trapani: No one technology is perfect and continual improvement is a basic value for us. In 2009, waterborne paints can adequately replace solvent-borne ones in a multitude of applications. While some applications still present challenges for a waterborne paint, aqueous technologies are proving themselves in more areas than ever before.

Halle 8, Stand 8-111



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hall 9, booth no. 149

"Scratch and abrasion resistance"

Nanotechnology can improve a lot of coatings properties

There's hardly an industry that nanotechnology has not touched yet. In the field of coatings the improvement in scratch and abrasion resistance is an important issue, as Dr. Christian Eger, BU Manager Coatings & Electronics Materials at Nanoresins, Geesthacht, DE, points out.

► **What are the most important market segments for nanotechnology in coatings?** Christian Eger: For our company, the main selling point for nanotechnology in coatings is the improvement in scratch and abrasion resistance with retention of the coating's transparency. We consider the key areas as being traditional coating for

parquet floors, furniture and vehicle interiors. Film applications are also becoming increasingly important: Worth mentioning here are laminate floors and electronic film, with the latter area being very strong in Asia. Even the renewable energy sector needs protective coatings, for example, on windmill sails.

► **Where are the current trends and innovations?** Christian Eger: Nanotechnology-modified products have already "established their right" to occupy a permanent place with coatings formulators. This is not because of the word "nano", but because of the specific improvements which they facilitate. This trend will continue in the future and is reflected



Car coating

Source: Nanoresins

in film applications as well as glass and tube printing, which we support with our products. High-quality, scratch-resistant packaging, e.g. for perfumes and other cosmetics, is increasingly in demand. In the field of printing inks, adhesion and abrasion resistance are important issues that nanoparticles can help to address.

the mechanical properties of the base dispersions.

► **What are the most important challenges?**

Christian Eger: We assume there will be a further tightening of the regulatory framework for nanotechnology in the future. We are already generating the relevant data. A differentiated approach to the various manifestations and forms of application of nanotechnology is very important, since users are confronted in the market with very different particles, aspect ratios and physical forms, all of which have different toxicological properties.

Hall 7, Stand 7-414

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"Better than conventional biocides"



Dr. Steve McDaniel,
Reactive Surfaces, LTD

Antimicrobial peptides are a real alternative to conventional biocides. Dr. Steve McDaniel, Reactive Surface, explains how these bioengineered biocides work.

► **How do these bioengineered biocides perform in comparison to conventional biocides?**

Steve McDaniel: Efficacy studies comparing AMPs to traditional biocides show that these bio-based additives work as well as and, in many cases, better than conventional biocides, at very low concentrations. For instance, AMPs admixed to 2-part polyurethane films on metal coupons outperform quaternary silanes and nano-silver biocides by 4-5 logs against bacteria.

► **The Biocidal Products Directive requires that biocidal products containing active substances be authorised or registered. You are showcasing non-toxic and non-polluting biocides. How do these "green" biocides work?**

Steve McDaniel: Pharmaceutical research has led to promising natural biocides for coatings called antimicrobial peptides (AMPs). AMPs work on the principle of peptide-cell membrane interaction followed by displacement of lipids and alteration of the membrane structure. AMPs compromise the integrity of the membrane, killing the cell quickly. Small amounts have a synergistic effect on other biocides. This mode of action prevents the development of resistance.

► **What are the potential applications?**

Steve McDaniel: AMPs combine the human-safety and environment-friendly nature of naturally-derived biocides with the fast-acting and broad-spectrum nature of more traditional chemical biocides. They can be used alone or synergistically in combination with existing biocides to quickly and effectively kill fungi and bacteria, including the spore stages of such microorganisms, as well as certain protozoa and encapsulated viruses.

Hall 7A, Stand 309

“Still room for improvement”

Shorter testing time for accelerated weathering tests are demanded

The EC SHOW and CONGRESS address new developments and the latest trends and challenges facing the industry. Dr. Artur Schönlein, a representative of ECS exhibitor Atlas Material Testing Technology GmbH, summarizes the trends and challenges in accelerated testing. To learn more about accelerated weathering test, attend Dr. Schönlein's presentation “Accelerated weathering test of plastics and coatings – New technologies and standardization” at 14.00 h.



Dr. Artur Schönlein,
Atlas Material
Testing Technology GmbH

» What will be a trend in accelerated testing?

Artur Schönlein: Solar radiation can be closely simulated using several light sources

including xenon. Precision, especially in the UV range, plays a decisive role to increase the consistency of test results, but there is still room for improvement. One trend will be to develop more precise lamps and filters to simulate as close as possible the very steep UV cut-on of the sun, which is basically determined by the UV absorption of the extraterrestrial solar radiation in the ozone layer. In addition

to new lamps and filters appropriate calibration devices need to be included to shape every holistic concept. Improved calibration techniques for radiation and temperature calibration devices are on the way. Furthermore, smarter test methods will help us to achieve more reliable, faster test results. The optimization of the wet and dry test cycles have been an area of investigation for quite a while to

help achieve more realistic testing. In addition to the established analytical tools, we will probably see new degradation detection devices as an outcome of all the efforts done in the coatings industry. This is especially true in identifying property changes of coatings after early stages of exposure. With this test times can be shortened significantly.

» Where do you see challenges/difficulties for accelerated tests?

Artur Schönlein: Our experience is that users typically expect accelerated weathering test results in extremely

short test times. However, every test should be as realistic as possible for its application of specific stresses. The challenge is to improve the correlation between accelerated testing and natural exposure for each specific material stress. Following this, the accelerated test procedure needs to be carefully selected and - something what is often neglected - a validation procedure should be completed for each new piece of test equipment, guaranteeing the appropriate approach to every material to be tested.

Hall 9, Stand 9-256

Coatings knowledge black on white

Vincentz Network presents brand new titles and revised editions of coatings textbooks along with a selection of general overviews and in-depth topics. The reference works provide high-quality information to industry newcomers and valuable information to keep experts updated. The publications cover topical subjects that will also be discussed at the show and its tie-in conference.

High-Solids Binders

Mircea Manea

This book contains comprehensive knowledge in the field of high-solids systems. More specifically, it provides an overview of the various classes of binders and ways of transforming them into high-solids binders. It addresses the challenges of formulating high-performance coatings while conserving resources and protecting the environment.

The textbook is recommended to all readers seeking a thorough understanding of high-solids systems, from choosing a binder to the process of for-

mulating systems. It contains information for formulators seeking proficiency, a deeper knowledge and understanding of high-solids systems, as well as for experts who need to have this knowledge at their fingertips.

Accelerated Testing

Dr. Ulrich Schulz

This book is all about natural and synthetic weathering of paints and coating systems. Not only does it provide com-



prehensive coverage of both essential knowledge and a solid grounding for students and newcomers to the topic. It also contains numerous practical examples and valuable recommendations on test optimisation and error avoidance that testers can employ in their daily work in the laboratory and the paintshop. Clearly structured, and boasting a detailed index and literature references, this book is an indispensable reference work for those interested in accelerated testing.

Hall 9, stand 9-229



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Product Presentations

Hall 6, Stand 6-133

10.10-10.30 stand 7-344
"Jetfine 1A", a new ultrafine talc to confer superior hiding power to paint without diminishing gloss,
Rio Tinto Minerals, FR-Toulouse *Frédéric Joffret*

10.30-10.50 stand 9-305
New additives for appearance and performance enhancement in high solids and waterborne coatings,
Eastman Chemical, US-Kingsport *Deepanjan Bhattacharya*

10.50-11.10 stand 7A-135
Silane terminated and reactivity controlled PU-prepolymers,
Bayer MaterialScience, DE-Leverkusen *Christos Karafilidis*

11.10-11.30 stand 7-422
Organic pigments and effect pigments – the basis for creative color design,
Clariant International, CH-Muttenz *Matthias Weimer*

11.30-11.50 stand 6-221
Screenless agitator bead mill for the use of smallest grinding media,
Netzsch-Feinmahntechnik, DE-Selb *Dr. Stefan Mende*

11.50-12.10 stand 8-111
New "Primal MG-1000" with new "Hydrotech" technology:
low VOC gloss coatings-advances in performance and sustainability,
Rohm and Haas Europe, DE-Frankfurt *Dr. Anne Koller*

12.10-12.30 stand 7A-309
Peptides as broad spectrum biocides in coatings – the green solution,
Reactive Surfaces, US-Austin *Dr. Steven McDaniel and Dr. Melinda Wales*

13.10-13.30 stand 7-131
"Revacryl 5833" – new approach to low VOC dispersion tile adhesives,
Synthomer, DE-Frankfurt *Martin Britton*

13.30-13.50 stand 7-557
"Ciba Efka" – benchmark dispersion of carbon black for waterborne and solventborne coatings
Ciba, NL-Heerenveen *Manfred Jorna*

13.50-14.10 stand 7A-317
Room-temperature crosslinking systems,
Evonik Industries, DE-Essen *Dr. Gerold Schmitt*

14.10-14.30 stand 9-443
Modern vinylacetate binder for high performance latex,
Errcos Deutschland, DE-Recklinghausen *Anton Solich*

14.30-14.50 stand 7-515
Specialty components: the ideal tool box for innovative formulation chemists,
Huntsman Advanced Materials, CH-Basel *Martin Gerlitz*

14.50-15.10 stand 7-209
Low toxicity amino curing agents for epoxy system,
Po.Int.Er, IT-Poirino *Dr. Fausto Tagliano*

15.10-15.30 stand 7-743
Innovative in-can preservation,
Arch UK Biocides, GB-Castleford *David Ogden*

15.30-15.50 stand 8-417
Liquid polybutadiene resins as chemical intermediates,
Sartomer Europe, FR-Paris *Jean-Marc Monsallier*

15.50-16.10 stand 7-303
Verbannung des Störfrieds Sauerstoff –
Ein Beitrag zur UV-Inert-Technologie,
GEW, GB-Redhill *Wolfgang Ziebell*

16.10-16.30 stand 7A-121
Perfect layers: new waterborne resins for 2K polyurethane coatings for
ACE and metal general,
DSM NeoResins, NL-Waalwijk *Erik de Knoop*

Hall 7, Stand 7-419

09.50-10.10 stand 7-422
Incorporation of pre-dispersed UV-stabilizers in waterborne coatings,
Clariant International, CH-Muttenz *Jean-Yves Desrats*

10.10-10.30 stand 9-515
"Advantex" & "Vantex T", the multi-functional amine additives for paints and coatings,
Taminco, BE-Gent *Kurt Byse*

10.30-10.50 stand 7A-412
Coating of round micronized waxes enables new formulations,
Deurex, DE-Elsteraue *Dr. Ernst Krendlinger*

10.50-11.10 stand 7-655
Polycarbonates in polyurethane dispersions,
Synthopol Chemie, DE-Buxtehude *Dr. Rüdiger Spohnholz*

11.10-11.30 stand 7-149
Epoxidized polysulfides-sulfur-containing base polymers with unique properties for use in adhesives, sealants and coatings,
AkzoNobel Surface Chemistry, SE-Stenungsund *Winfried Welter*

11.30-11.50 stand 7-557
"Ciba XYMAR Fireball" – novel colour effects from a 'traditional' organic
Ciba pigment,
Ciba, CH-Basel *Paul Brown*

11.50-12.10 stand 8-417
Sartomer's portfolio to optimise adhesive formulation,
Sartomer Europe, FR-Paris *Stéphane Thion*

12.10-12.30 stand 7-543
"Borchi OXY" –
novel iron based paint and ink drying catalysts,
OMG Borchers, DE-Langenfeld *Dr. Hugh Gibbs*

13.10-13.30 stand 7A-413
High security marking concept,
Sachtleben Chemie, DE-Duisburg *Dr. Jürgen Kastner*

13.30-13.50 stand 7A-205
Black is beautiful – new additives for powder coatings,
Byk-Chemie, DE-Wesel *Heiko Juckel*

13.50-14.10 stand 9-413
Save or win! – a new value engineered binder for scrub resistant interior wall paints,
PolymerLatex, DE-Marl *Andreas Lüdemann*

14.10-14.30 stand 7A-135
Push the limits – lower-lowest-super lowest-viscosity: "Desmodur XP 2730"
Bayer MaterialScience, DE-Leverkusen *Markus Mechtel and Olaf Fleck*

14.30-14.50 stand 7-422
New polymer based improved micronized waxes for coatings,
Clariant International, CH-Muttenz *Sebastian Bach*

14.50-15.10 stand 7A-31
"Foamex K8" – the ecological alternative to mineral oil defoamers,
Evonik Industries, DE-Essen *Jürgen Kirchner*

15.10-15.30 stand 7A-429
New easy-to-use, ultra-highly efficient rheology modifiers,
Cognis, DE-Monheim *Harald Frommelius*

15.30-15.50 stand 9-247
Exploring the use of tall oil fatty acids in alkyd emulsions,
Arizona Chemical, NL-Almere *Dr. Godfried Buisman*

15.50-16.10 stand 10-115
"Ternal EV" – a new innovative calcium aluminate based product for self levelling compounds,
Kerneos, FR-Neuilly sur Seine Cedex *Dr. Lionel Raynaud*

16.10-16.30 stand 7A-511
Paint it cool – how to cut the solar heat build-up in coatings
BASF, DE-Ludwigshafen *Dr. Rainer Henning*

16.30-16.50 stand 8-211
New waterbased UV curing polyurethane dispersion for industrial wood and plastic finishing,
Alberdingk Boley, DE-Krefeld *Helmut Friedrich*

Hall 9, Stand 9-351

10.10-10.30 stand 9-625
Starch based products for the construction industry,
Agrana Stärke, AT-Gmünd *Uwe Aigner*

10.30-10.50 stand 9-229
European Coatings WebEvents: Efficient interactive live training courses in challenging times
Vincentz Network, DE-Hannover *Sven Tänzer*

10.50-11.10 stand 8-211
New solvent-free hard elastic polyurethane dispersions for high quality wood and plastic coatings,
Alberdingk Boley, DE-Krefeld *Guido Möllenbeck*

11.10-11.30 stand 9-415
Developing alkyd emulsions for VOC-free coatings with minimum effort,
Croda Industrial Specialities Europe, NL-Gouda *Jo Grade*

11.30-11.50 stand 7-422
Cost-effective production of paints with ED pigments,
Clariant International, CH-Muttenz *Wolfgang Winter*

11.50-12.10 stand 10-128
Morchem's new low-VOC PU dispersions – product range & applications,
Morchem, ES-Barcelona *Mireia Diaz*

12.10-12.30 stand 7A-135
"Bayhydrol A XP 2695" – the next step to high performance for corrosion protection,
Bayer MaterialScience, DE-Leverkusen *Thomas Stingl and Robert Reyer*

13.10-13.30 stand 9-552
Rheologisches Verhalten von Lacken und Farben: Vergleich von einfachen und wirklich aussagekräftigen Messmethoden,
Anton Paar Germany, DE-Ostfildern *Thomas Mezger*

13.30-13.50 stand 9-261
Developments in equipment for testing and inspecting coatings,
Elcometer, GB-Manchester *Craig Woolhouse and Colin Bennett*

13.50-14.10 stand 7A-511
"Laromer" first choice for UV-curable parquet coatings,
BASF, DE-Ludwigshafen *Klaus Menzel*

14.10-14.30 stand 9-557
High throughput experimentation in coatings R&D,
Hte Aktiengesellschaft, DE-Heidelberg *Philipp Hauck*

14.30-14.50 stand 7-414
Nanosilicacomposites combined with elastomeric tougheners for new improvements in coatings,
Nanoresins, DE-Geesthacht *Marco Yann Heuer*

14.50-15.10 stand 8-111
Rheology in coatings – typical problems and practical solutions by Rohm and Haas,
Rohm and Haas Europe, DE-Frankfurt *Alain Garzon*

15.10-15.30 stand 7-543
New flow and leveling additives,
OMG Borchers, DE-Langenfeld *Laurent Barnils*

15.30-15.50 stand 7A-205
Improvement in scratch resistance of clear and pigmented coatings using nanoscale inorganic fillers,
Byk-Chemie, DE-Wesel *Dr. Thomas Sawitowski*

15.50-16.10 stand 7-557
"Ciba Tinuvin MS" for stabilization of MS Polymer Sealants,
Ciba Specialty Chemicals, CH-Basel *Dr. Eva Peregi, Dr. Markus A. Meier and Benno Blickenstorfer*

16.10-16.30 stand 9-325
"Rheolate CVS-2-additive" – a new solution for viscosity loss on tinting,
Elementis Specialties, NL-Delden *Detlef van Peij*

16.30-16.50 stand 7A-529
"Ymer N-120", non-ionic dispersing agent for waterborne resins,
Perstorp, SE-Perstorp *Henrik Bernquist*



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At the Congress

Today's twelve sessions comprise about 70 presentations and take place in the CCN Ost. Adhesives & sealants, printing inks as well as waterborne coatings systems are in the focus today. You may find further information and details on times, tickets, and locations at the CONGRESS Registration Desk. Here are some quotes of chairpersons regarding their sessions.

09.00 – 12.30 h, Room Shanghai Waterborne Systems I

Chair: Dr. Jurgen Scheerder, DSM NeoResins+, NL:
"A session for stimulating discussions that will give everybody food for thought and plenty ideas to try when back home"

09.00 – 12.30 h, Room Istanbul Printing Inks

Chair: Dr. Jack Baarends, Hexion Speciality Chemicals, BE
"You can expect a wide variety of new technologies which will contribute to meet challenges in today's printing industry"

09.00 – 12.30 h, Room Copenhagen Novel Materials

Chair: Dr. Janus Hajas, Byk Chemie, DE
"The lectures display an overview on the latest developments and research results in the paint additive field, with a focus on additives for ecologically acceptable systems"

14.00 – 17.30 h, Room Copenhagen Construction Chemicals

Chair: Ferdinand Leopolder, drymix@info, DE
"The papers present new ideas for concrete technology and drymix mortars, and give an outlook on future construction materials"

14.00 – 18.00 h, Room Seoul Adhesives & Sealants II

Chair: Dr. Michael R.C. Gerstenberger, Hinterwaldner Consulting, DE
"A number of new developments in the field of reactive polymer based adhesives are presented"

14.00 – 17.30 h, Room Kiev Polyurethanes

Chair: Dr. Christoph Irle, Bayer MaterialScience, DE
"Speakers of market leading players will present new applications and chemistries of modern polyurethane coatings systems"

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An aerial photograph of a silver car parked on a large, flat, light-colored rock formation. The surrounding landscape is composed of numerous smaller, rounded rock formations of varying sizes, creating a textured, undulating terrain. The lighting is soft, highlighting the textures of the rocks.

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