Program ATIPIC – NVVT Symposium 21.03.2024 - Van der Valk Hotel Breda

10.00 hrs. Reception & registration

10.25 hrs. Opening morning program by Jacques Warnon (ATIPIC)

10.30 hrs.

Ulf Stalmach - ORONTEC GmbH & Co. KG.

Digitalization and the Paint Industry - Why a Smart Paint Factory Alliance".

The buzzword digitalization is always in the headlines, also in the Paints and Coatings Industry. However, when it gets to actual success stories, material related to paints and coatings becomes scarce in a hurry. After a short explanation of how we envision the Smart Paint Factory of the future compared to the status quo of paint production, we will show how digitalization and smart measuring devices can improve these processes. Examples for measuring devices are given.
As a next step, this is put into the context of the whole value chain "Coating", taking all parties involved from raw materials to coated end product and beyond to recycling into consideration as well. The advantages of this holistic approach dubbed Smart Paint Factory Alliance for the whole industry are worked out, and the benefits for the whole industry as well as the necessity for this approach to considerably improve sustainability is demonstrated.

11.05 hrs.

Marcel Meeuwisse - ALLNEX-NL

Hybrid WB(UV) coating on wood with high sustainability value

As a leading coating resins manufacturer, sustainability is a key parameter of our continued success in the market. We embrace our corporate responsibility and focus on pursuing a greener sustainable future for our customers and planet. Our broad portfolio of technologies and products presents us with multiple challenges as well as opportunities to pursue this goal.In this presentation we will showcase a full waterborne coating system on wood, combining different aspects of sustainability (recycling, mass balance and new biobased raw materials), as well as complementary technologies (conventional 1K and WB UV).

11.40 hrs. Break

11.55 hrs.

Gijs Jansen – Alucha Works BV

Circular Calcium Carbonate – Making industrial minerals circular

Calcium carbonate is a workhorse for many industries that use the mineral as an extender or filler in their products (paper, paints, plastics, rubber, adhesives, etc). Paper mill sludge (PMS) is the largest waste stream in the paper industry. Generated in the water treatment facilities at paper mills, it consists of waste cellulose fibres and paper fillers like calcium carbonate and kaolin. Alucha developed technology to recover the calcium carbonate fillers from the PMS waste stream in such a way that these can be used again as fillers in consumer products. We call our fillers Circular Calcium Carbonate (CCC). Circular calcium carbonate by Alucha increases the recycled content in products, reduces the use of primary resources and contributes to the sustainability of our planet. Alucha aims to open its first CCC production (Mine2) next year in Katwijk NB, the Netherlands. A pilot test plant (Mine1) is now operational at the same location.

12.30 hrs. Lunch

13.40 hrs. Continued afternoon program by André van Linden (NVVT)

Pieter Samyn - SIRRIS-BE

13.45 hrs. Versatile role of nanocellulose in paints and coatings

Nanocelluloses are becoming a family of emerging technical materials derived from renewable sources or residual biomass with diverse potential in paints and coatings. Different grades becoming economically available at industrial scale should be considered for formulation of novel coatings with a broad range of functionalities. Depending on the use of mechanical and chemical extraction routes in combination with appropriate surface modification, morphologies and rheological properties of the nanocellulose are tuned for appropriate application conditions through spraying. An overview on functional properties of cellulose nanocrystals (CNC), cellulose nanofibrils (CNF) and cellulose microfibrils (CMF) in different composite coatings will be illustrated, including latex (i.e., natural rubber or acrylate coatings), melt-phase (i.e., biopolymers such as polylactic acid coatings), or waterborne resin coatings (i.e., epoxy coatings), with application in paper, wood, or industrial coatings with improved mechanical durability and barrier protection. It is demonstrated that the successful use of nanocellulose as a reactive bio-filler mainly relies on its interference in the curing kinetics of resin and hardener, resulting in improved crosslinking density and mechanical resistance. Recently, advances were also made in pure nanocellulose-based coatings with additional functionalities owing to the hydrophobization, controlled release and/or anti-microbial surface modification (mCMF).

Toine Biemans - Worlée-Chemie

14.20 hrs. Developments in the field of bio-based dual cure resins straight from the R&D kitchen

Alkyd resins are an important product group that can be used in a wide variety of coating systems. By their very nature, they already contain biobased raw materials. Increased environmental awareness as well as legislation drive the continuous development of these coating resins. The solvent content is to be reduced and certain siccatives and oxime-containing anti-skinning agents are to be eliminated.The silane-functional polyurethane-urea binders of the WorléePurSi series achieve exceptional properties, especially in terms of drying speed, hardness and chemical resistance. Before application, a catalyst must be added so that the hydrolysis and polycondensation of the silane groups present in the binder can take place. Although the pot life of these binders can be several days, weeks or even months, for many consumers this is not sufficient to be considered as an alternative for traditional 1K paint systems, which tend to have an infinite pot life.However, the WorléePurSi-technology has been developed further significantly. The first prototypes combine high amounts of biobased raw materials with the oxidative drying of alkyd resins and the moisture curing of silane-functional systems. With this technology coating systems can be formulated that can fulfil current and future legislative as well as sustainability requirements.

14.55 hrs. Break

Udo Schonhof - Elementis

15.10 hrs. Powder NiSAT topic and Sustainable additives

Formulators, producers, and end users of paints and coatings are focusing more and more on sustainability. The key for differentiation is the choice of raw materials that support a company's sustainability strategy.
NiSAT thickener grades, also called polyurethane associative thickeners, are designed to provide specific rheological profiles giving the final product the required high performance. In general, these products are compositions of polyurethanes mainly in water with relatively low solid contents. New manufacturing techniques, changes in the biocide regulation of coatings, and the focus on sustainability have revealed certain disadvantages of these liquid products. Powder thickener consists of 100% rheologically active material and are meeting the described demands. These products are while maintaining the full performance of the liquid versions at noticeably higher efficiency. Powder thickeners are offering further benefits such as reduced storage and transportation volume which results in reduced cost and overall carbon footprint. Lastly, since these products need no biocides, they are well designed to meet future regulations and market needs.
Beyond Elementis is looking for many different directions in order to improve the sustainability and the performance of coating systems. A current initiative is implementing the above described NiSAT technology based on renewable resources.

15.45 hrs. Closure symposium

16.00 hrs. - 17.00 hrs. Closure with appetizers and drinks.

REGISTRATION FEES (Lunch included)

NVVT/ ATIPIC member:	€ 50,00
Non NVVT / ATIPIC member :	€ 120,00
Speaker:	Free

REGISTRATION & CANCELLING

Registrations are to be made at the latest **by March 15th 2024**

Best regards,

Nederlandse Vereniging van Verftechnici (NVVT)

NVVT

André van Linden, chairman
Wil van Meer, secretary
Dirk Klomp, treasurer
Martin Bloem
Michel La Faille
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