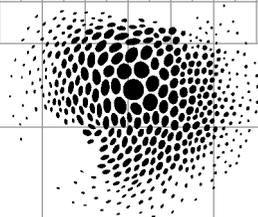


**Nederlandse Vereniging
van Verftechnici (NVVT)**



Bond voor Materialenkennis

Invitation

NVVT Symposium:

Pigments and Fillers

The Dutch Association of Paint Technicians (NVVT) invites you to attend this symposium to be organized on:

Tuesday, 28th January 2020

Congress Center 't Veerhuis,
Nijemonde 4, 3434 AZ Nieuwegein-Zuid
Website: <http://www.tveerhuis.nl>

Registration	starts at 12.30 hrs. with coffee and sandwiches
Start of the symposium	13.30 hrs.
Closure and drinks	16.45 hrs.

Program

12.30 hrs Reception, registration with coffee and sandwiches

13.25 hrs Opening by P. Geurink – chairman NVVT

13.30 hrs Powder and Particle Aspects in Dry and Wet-Phase Conditions

Johan Groen, Delft Solids Solutions

In a wide range of industrial applications, solid materials are produced and handled dry. Considering these dry solid materials, primary properties such as particle size, particle shape, density, and surface area and porosity have a major impact on the intrinsic properties and therefore also on the behavior and applications of such materials. Besides, also external variables such as temperature and moisture can greatly influence the materials' performance.

Particle size and flowability: smaller particles tend to make the material more cohesive and can make transport, storage, and dosing very complicated.

Particle size and dustiness: a dusty material is typically composed of small powder particles but small particles do not necessarily create a dusty material.

Surface area and porosity in relation to interaction with moisture or liquids: materials with a high surface area and/or porosity can pick up water without becoming sticky, while denser materials can display stickiness with only minor exposure to moisture.

Particle size and density and mixing: mixing of materials with varying size or density can be considered a challenge in view of segregation during and after the mixing process.

On the use of solid particles and powders in liquid phase applications, phenomena like wettability, sinkability, and dispersibility are relevant. All the above aspects are discussed in this short presentation.

14.05 hrs Performance engineered silicas for coatings

Adam Riley, PPG Silica Products

PPG Silica Products have been producing high quality precipitated silicas to advance the product performance, processing and appearance of coatings for over forty years. From enhancing the efficiency of flattening agents and the sag control of thixotropic silicas to the development of environmentally responsible anti-corrosion pigments, PPG have consistently delivered innovation and technical expertise to satisfy the ever-evolving demands of the coatings industry. PPG will present an overview of different product types within their precipitated silica ranges and how they can enhance the performance of your coatings. This will be followed by details of the much anticipated new generation of functionalised silica products that can offer a unique added value to your formulations – you can see it here first!

14.40 hrs Circular Calcium Carbonate

Gijs Jansen, Alucha

Calcium carbonate is a workhorse for many industries, that use the mineral as extender or filler in their products. It is used in a vast variety of products like paper, plastics, carpets and also paint.

It is, however, a fully linear material, extracted from mines and eventually wasted in landfills or incinerators, thereby causing substantial CO₂ emissions.

Fossil calcium carbonate is one of the earth's CO₂ sinks, almost half of its weight

consists of CO₂. Its incineration releases the CO₂ into the air, potentially equal to the emission of about 10% of all cars on the road in Europe!

Following many years of development, Alucha is bringing to the market a solution that recovers calcium carbonate from paper industry waste, so making calcium carbonate circular, obsoleting excavations and avoiding CO₂ emissions. In 2020, Alucha's world's 1st production facility will be started up: "Mine1".

15.15 hrs Break

15.35 hrs Effect Pigments: Past, Present & Future

Dr. Frank J. Maile, Global Technical Director, Schlenk Metallic Pigments GmbH

Paints and coatings are used for a variety of industrial products, ranging from automotive production to architectural components such as facades, consumer electronics and everyday objects.

These coatings have to do more than just fulfil an identification function or act as a mere protective barrier. Today, they are expected to add visual effects in which visually perceptible properties such as sheen, angular dependency of the color, structure or texture are present by design in addition to the color itself.

This talk will briefly overview (1) effect pigment technology and our recent contributions to the latest effect pigment generations (2), realistic appearance measurements and the visualization of effect coatings incl. highly-reflective, mirror-like finishes, and finally (3) the characterization of diffractive effect coatings based on particle analysis.

16.10 hrs Understanding Methods for Optimising Titanium Dioxide Performance

Jorma Viitanen, Coatings & Plastics Business Unit, FP-Pigments Oy

For generations Coatings and Plastics formulators have been "optimising" their formulations to help manage the cycle of Titanium Dioxide availability and price change. Over time specialist extenders and optical polymers have been developed which have facilitated Titanium Dioxide reduction through improving packing (reducing crowding), introducing air voids and in some cases by increasing dry hide with the acceptance of porosity compromises that follow.

Ten years ago, FP-Pigments introduced their TiO₂-based opacity pigments to the market. The launch coincided with a period of shortage in Titanium Dioxide supply and the highest prices seen since the late 1980's. At this time this novel TiO₂ technology was utilized by many out of desperation rather than strategy, urgently adopting methods to reduce TiO₂ consumption and maintain production volumes. Since then, even though the weakest TiO₂ market conditions, the success and use of FP-Pigments has continued to grow as formulators develop a greater understanding of our technology and apply it to more formulations. Recent practical and theoretical work by FP Pigments has re-enforced the basis upon which this technology was developed but also highlighted the best routes to delivering value to the smart formulator.

This presentation will show how the mechanism used by FP Pigments is different to those TiO₂ optimisation methods used before and how it can augment rather than replace existing optimisation solutions and outline the potential for major cost savings opportunities which will always deliver value to the user across the TiO₂ cycle.

16.45 hrs Closure with appetizers and drinks

REGISTRATION FEES

	<i>Dutch companies</i>	<i>Foreign Companies</i>	<i>No vat number</i>
Members BvM/NVVT	free	free	free
Members BvM	€ 61,00 (incl. 21% vat)	€ 50,42 (vat reversed charge)	€ 61,00 (incl. 21% vat)
Non Members	€ 73,20 (incl. 21% vat)	€ 60,50 (vat reversed charge)	€ 73,20 (incl. 21% vat)
Retired and students			€ 30,50 (incl. 21% vat)

ATIPIIC members are offered 50% reduction of the registration fee.

The cash payment has to be done at the entrance of the conference room. For practical reasons neither cheques nor credit cards will be accepted.

REGISTRATION

Registrations are to be made at the latest Thursday 23-1-2020 by e-mail: info@materialeknennis.nl

Your registration will be confirmed. In case you do not receive the confirmation or if you are not able to come please contact the Society for Materials Science as soon as possible.

UPCOMING SYMPOSIA

- 22-4-2020 Brecht meeting together with ATIPIIC; Theme: Sustainability
- 26-5-2020 General meeting + Theme: Measuring is knowing
- 2/4-9-2020 ETCC 2020 in Krakow, Poland
- 29-9-2020 ETCC highlights
- 24-11-2020 Theme: Binders

The board of the NVVT is looking forward to meet you on January 28, 2020!

BOARD OF THE NVVT

Pieter Geurink, chairman
Wil van Meer, secretary
Andre van Linden, treasurer
Michel la Faille
Jaap Akkerman
Dirk Klomp
Martin Bloem
Ad Hofland

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