



The Board of ATIPIC invites you to attend its

first technical activity 2021

on February 9th, 2021 on Microsoft Teams,

where 3 lectures will be held.

PROGRAM

- 14:30 Opening session by Dr. Jacques Warnon – President ATIPIC
- 14:35 **New acrylic technology for Cool Roofs with low dirt pick-up and asphalt bleed-through resistance**
Dielip Jethoe, Engineered Polymer Solutions BV
- 15:10 **New anti-icing coatings and surfaces**
Joey Bosmans, SIRRIIS
- 15:45 **Incorporation of SWCNTs in UV/EB curable formulations**
Philippe Bichot , OCSiAl and Xavier Drujon, Sartomer

REGISTRATION FEES

ATIPIC member :	Free
AFTPVA/NVVT member :	25.00 EUR (VAT included)
Non-ATIPIC/AFTPVA/NVVT member :	50,00 EUR (VAT included)
Student:	Free
Speaker:	Free

The payment has to be done by 2nd February latest on the ATIPIC bank account n° BE22 2710 6182 9347.

Mention your first name and family name as communication on your bank transfer.

REGISTRATION & CANCELLING

Registrations are to be made at the latest **by February 2nd** and exclusively with this link:
[Registration form](#)

To cancel your registration please contact by mail info@atipic.be at the latest by February 2nd . Any canceling after this date will induce the sending of an invoice for the mentioned amount on the fill-in registration form.

The ATIPIC management is looking forward to meet you on February 9th , 2021.

NEXT ATIPIC 2020 EVENTS

April 21, 2021 Study Day in collaboration with NVVT
October 7, 2021 Study Afternoon in collaboration with BPG
December 2, 2021 Study Day in collaboration with AFTPVA

ATIPIC MANAGEMENT

J. Warnon, President	R. Haegeman, Secretary
E. Mol, Vice-President	C. Dekerckheer, Vice-President
Ph. Janssens, Treasurer	H. Dedeurwaerder
B. Dejolier	S. Kervyn
L. Nagels	D. Pierre

For questions and for all further information about ATIPIC please contact by mail the secretary desk of ATIPIC info@atipic.be

ATIPIC **Belgian Association of Technicians from the Paint and Allied Industries**
ATIPIC **L'Association des Techniciens de l'Industrie des Peintures et des Industries Connexes**
 (Belgique)
ATIPIC **Vereniging der Technici van de Verf- en Aanverwante Industrieën (België)**

ATIPIC

avenue Emile Gryzon 1,B 1070 Bruxelles
Tél: +32 2 534 33 79 - Fax: +32 2 34 33 95



ABSTRACTS

New acrylic technology for Cool Roofs with low dirt pick-up and asphalt bleed-through resistance

Dielip Jethoe, *Engineered Polymer Solutions BV*

The concept of cool buildings has become popular and common in our daily lives. Roofs are one of the key parts of buildings to which the concept applies well and Cool Roofs are a hot topic. Bitumen roofs are still pretty common and not at all cool, typically a white pigmented coating is applied over the bitumen to achieve that cool effect. If the binder is unable to prevent bleed-through of the underlying bitumen, the coating will lose its whiteness resulting in a loss of reflectance. This presentation will provide an overview of the different components of the coating formulation and the effect they have on properties such as tensile strength, elongation, adhesion, water resistance, flexibility and bitumen bleed-through resistance. Test data will be presented, demonstrating correlations between different additives employed and the film properties being tested. Emphasis will be placed on the effect of formulation parameters on dirt pick-up and asphalt bleed-through resistance.

New anti-icing coatings and surfaces

Joey Bosmans, *SIRRIS*

Ice can be formed on surfaces at 3°C outside temperatures and can cause many problems, even in Belgium. Different industries require solutions to prevent ice formation in order to reduce energy losses, to overcome safety issues or to minimize the impact on components.

As icing can occur in different forms (glaze ice, rime ice, mixed ice) dependent of the environmental conditions, it is important to adapt monitoring and de-icing strategies to the type of ice which is occurring.

Aviation, marine, construction & building, transportation,... are already using active de-icing systems such as thermal de-icing and mechanical de-icing but these systems require an external energy source. Other ice prevention methods focus on the use of chemicals but their use is not favourable as they can be harmful for the environment.

Passive anti-icing methods focus on the use of coatings or modified surfaces to repel ice water droplets, suppress ice nucleation sites on surfaces or lower ice adhesion. This can be achieved through lowering the elastic modulus, decreasing the surface energy, releasing lubrication liquid or introducing interface slippage.

Several types of coatings are already in use in different application, but it has proven to be a challenge to match anti-ice coating to the requirements of certain applications.

Although current coatings show significant reduction in adhesion strength of ice to substrates in lab tests, they lack reliability and durability in an operational environment.

Sirris has started a collective research on the topic of ice prevention and will work actively on this topic during a 4-year program. Currently, an ice testing setup is built in the large climate chamber in Antwerp and the following years, coatings will be put to the test to evaluate their performance under different conditions.

Incorporation of SWCNTs in UV/EB curable formulations

Philippe Bichot, *OCSiAl and Xavier Drujon, Sartomer*

TUBALL™ Graphene Nanotubes (also called SWCNT) provide exceptional properties at ultra-low dosages: 0.01wt% to 0.05wt% (for coatings).

The first property being systematically improved is the electrical conductivity allowing anti-static, dissipative and conductive resistivity levels depending on the dosage.

Furthermore, TUBALL™ also improves mechanical properties, depending on both dosages and client formulations.

Due to the unique & patented OCSiAl's mass-production process, TUBALL™ Graphene Nanotubes is currently the only economically viable and commercially available SWCNT-solution.

Therefore, a wide range of industries (coatings, composites, thermosets, thermoplastics, elastomers, batteries-cells...) is already using TUBALL™ worldwide.

The UV EB curing industry remains one of the most rapidly developing technology in the entire coatings industry. Sartomer proposes the world's broadest toolbox of (meth)acrylate based resins and monomers, allowing customized properties and exceptional freedom of formulation design.

There is however limited literature available describing the incorporation of graphene nanotubes into UV or EB curable acrylate formulations.

In this presentation, Sartomer will describe the influence of the incorporation of graphene nanotubes on the liquid and solid properties of simplified UV and EB curable formulations.

The surface conductivity measurements performed by OCSiAl demonstrates the interest of this approach to develop antistatic coatings, which could find applications in flooring, electronic, or general industry.