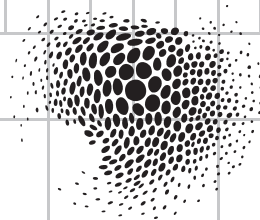




ATIPIC



NVVT



Bond voor Materialenkennis

ATIPIC / NVVT STUDY - DAY

LOW CARBON FOOT PRINT AND COATINGS

MARCH 16th, 2010

Welcome / registration: 09h00

Start of sessions: 09h30

End of sessions: 16h40

E 10 HOEVE BRECHT

BELGIUM

PROGRAMME

09h00 **Welcome**

09h30 **Session Opening by Ph. Janssens, President ATIPIIC**

09h35 **Aiming for synergy on sustainability and Carbon Foot Print**

Jan Besamusca: DSM NeoResins+ (NL)

DSM NeoResins+ has clearly indicated in its strategic mission that it wants to be (come) the leader in specialty resin coatings of which sustainability is an essential part. DSM NeoResins+ supplies a broad range of technologies for coatings ranging from (waterborne) alkyds to polyurethane (alkyd) dispersions to waterborne acrylics. This paper will highlight the (possible) developments for environmental sustainable resins for coatings for the next decade taken into account the use of bio-renewable raw materials, its carbon footprint and Life Cycle Analyses.

10h15 **Reduction of Carbon foot print in Car Refinish bodyshops**

Dr. Keimpe van den Berg: Akzo-Nobel Car Refinishes (NL)

The repair process in Car Refinish bodyshop and its impact on the carbon footprint will be presented. Besides the measurement the impact of several paint technologies on reduction of the carbon footprint will be presented. For instance use of a waterborne basecoat compared to a solventborne basecoat. Also the impact of UV technology on carbon footprint reduction will be presented.

10h55 **Coffee break**

11h20 **Enabling technologies for the coatings industry: sustainability is profitability**

Dr. Andrew Trapani, Dr. Houshang Kheradman: Dow Coating Materials (FR)

In this paper we will discuss how the sustainable development approach is holistic, cross-disciplinary and necessarily involves functions across the organisation. It covers the whole value chain, and allows for the mapping of the carbon footprint of individual products, as well as for the identification of financial, operational and carbon-saving opportunities. We share some examples of our enabling technologies that allow paint formulators to create innovative products that combine high performance with an optimised eco-design. These technologies include: Organic opacifiers to replace titanium dioxide, advanced waterborne polymers with pigment encapsulation capabilities, waterborne polymers that dry quickly in all weather conditions, waterborne and hybrid polymers that allow for high gloss, low VOC coatings formulations.

12h00 **Lunch**

14h00 **Influence of titanium dioxide pigments in paints and coatings with regard to the 2010 VOC Regulation**

Jürgen Bender, Thomas von Oppenkowski: Kronos International (DE)

The importance of environmental aspects in the paints and coatings industry is continually growing, one focus (target) being the VOC's reduction. From 2010 onwards, producers and users will again face new challenges, partly due to significant formulation changes using new low VOC's binder systems. Kronos International Inc. investigated different post-treated TiO₂ pigments in modern High Solids for their dispersibility, application characteristics, wet and dry film properties and weathering performances. We furthermore examined the question of whether and to what extent titanium dioxide pigments can contribute to reducing VOCs in paint systems. Higher loading in HS systems could be obtained with special TiO₂ I

14h40 Renewable resources for chemical building blocks: also opportunities for the coating industry?

Prof. Christian Stevens: Ghent University (BE)

The use of fossil fuels for the production of chemicals is a mature business. The production of ethanol from renewables and the production of biodiesel is not new. Which possibilities exist for renewable resources and organic waste streams to be used as a feedstock for chemicals. Can we prepare surface active ingredients for cosmetics from chicory root or what can be done with waste from Crustaceae? Also opportunities exist for the coating industry. Some examples of recent research will be presented in a broad picture related to the transition towards a more bio-based chemical industry.

15h20 Energy curable coatings: an eco-friendly technology with renewable raw materials

PhD Philippe De Groote: Cytec (BE)

Cytec has adopted Anastas and Warner's 12 Principles of Green Chemistry to develop, manufacture and promote innovative products for technical performance and eco-friendliness in its Resins business. Water or solvents free energy curable coatings which polymerize or cure on exposure to UV light or electron beam offer a number of advantages including fast curing and lower energy consumption that don't need large expensive thermal drying ovens. Typical eco-friendly coatings making use of energy curable oligomers and monomers as well as specific waterborne energy curable oligomers will be presented. Cytec is also developing and promoting energy curable resins that have moderate to high content of renewable raw material to eventually reduce dependence on extractive resources. Inks and coating products formulated with renewable components tend to decrease the environmental footprint of the final products. Renewable raw materials used for that purpose include several derivatives of natural oils and fatty acids. Practical examples will be presented and discussed.

16h00 Waterborne Epoxy Technology and Top Performance: no longer a Fairy Tale?

D. Vandenberghe, F.Heine, P. Claey-Bouuaert, K. Van Poppel, M.Rans, A. Frederix: Hexion (BE)

Nowadays, waterborne epoxy technology can replace solvent borne technology without sacrificing final performance, even offering new end-use areas. At the present time, main difficulty for formulators lies in selecting the 'fit for purpose' available waterborne technology. This paper will cover the latest waterborne epoxy-amine product and formulation developments in order to be able to meet extensive end-use requirements such as: application on difficult substrates (metal and non-metal), thin film application, extreme cure condition (low and high temperatures), fast cure, etc. It has been shown that with waterborne technology we can meet these requirements without losing performance and that Waterborne Technology and Top Performance are indeed no longer a Fairy Tale.

16h40 Final discussion and after meeting drink

Registration fees: (VAT included)

Speakers	free
NVVT/ATIPIEC members	€ 100,00
Non members	€ 140,00
Retired ans students	€ 45,00

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 and cancelling

Registrations are to be made at the latest by March 12th.at the ATIPIEC Secretary Office.

E-mail : atipic@meurice.heldb.be, Tel: + 32 2 5236306. To cancel your registration please contact ATIPIEC.

Location

E 10 Hoeve, Kapelstraat 8a, B 2960, BRECHT, Tel: + 32 3 3138285

From Antwerp to Breda

Motorway E19 Antwerpen-Breda exit 3 Brecht, direction village, at the traffic lights turn to the right in direction of Merksem and after about 1,5 km turn right again and you'll see the E 10 Hoeve on the left side.

From Breda to Antwerp

Motorway E19 Breda-Antwerp exit 4 Sint Job-in 't-Goor. After exit, go left direction Wuustwezel-Essen. After 1,5 km turn to the right. Follow this route for about 5 km. After crossing the highway you'll see the E 10 Hoeve at your right side.

Next NVVT Meetings

1 juni 2010	Bindmiddelen en ALV
21 september 2010	Self healing coatings
9-11 november	FATIPEC in Genua
30 november	EU Verfrichtlijnen 2010

The NVVT-management is looking forward to meet you on the 16th of March 2010!

Ing J.C. Van Gelderen, voorzitter
Dr. J.J.M. Lamberts, vice-voorzitter
Drs. R. Leijen, penningmeester
Dr. B.P. Alblas, secretaris
Drs. Ing. A. van der Horst
M. la Faille
Ing. A.P. Verbree
Dr. P.J.A. Geurink
Ing. J. Wezemer

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