

Interesting news from the seminar **Trend in Wood Coatings** organized by **Catas** and the **Politecnico of Milan**

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The seminar “Trends in Wood Coatings”, organized by Catas and Politecnico of Milan on December 13th, to take stock of the state of wood and furniture coatings in Italy, was a great success. The event, sponsored by Acimall, has exceeded all expectations in terms of participation (over 130 participants) and has, above all, recorded a tangible satisfaction by the entire audience and the speakers themselves at the end of the long day.

In these few lines we would like to quickly summarize only some of the subjects that were discussed during the 15 speeches.

Paolo Gronchi and **Franco Bulian** opened the day telling the reasons that led the **Politecnico of Milan** and **Catas** to organize this seminar. It was in fact a long time that Italy did not take stock of the situation of this important sector that has a strong impact on the aesthetic quality and performance of the surfaces of furniture and all the other products in the world of wood and furniture. The finishing sector is also growing at a global level, being pervaded by **strong quality requirements** (technical standards increasingly representing “reference points”), **environmental protection and safety** (atmospheric and indoor emissions) and the need for cost reduction. The competition of other finishing systems (paper, laminates, etc.) is also very strong, as is the demand for coating materials with particular natural

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effects or “zero gloss”.

But if you go to check the market shares it seems that little or nothing has changed compared to 10 or 15 years ago. The most used products are still the solvent based ones, with polyurethane coating to be the leading products...

Gianluigi Landoni of ADI (industrial designers association) and **Francesca Valan (Designer)** invited the audience to observe the finishes through the eyes and the skills of the designers. For many of those present it was a real discovery the logic that



governs this world in which **trends and fashions have their own meaning, their history, their culture and even their organization**. Materials and colors are not improvised but follow paths that intertwine with the social and even with the events that periodically move our consciences. The immediate future will be made of vivid, saturated colors with a strong appeal to the green of nature. Barbara Bartolomei of Sherwin-Williams then told how the coating manufacturers follows and collaborates with the world of design. The use of databases such as RAL or Pantone leads coating manufacturers to anticipate trends by proposing colors and finishes in line with market expectations.

Domenico Bruno of FCA (Fiat Chrysler Auto) has told how wood is also present in cars, especially those of a certain class. However, car interiors are very particular environments with climates that can vary very quickly and with very severe temperature and humidity conditions for this material. The approach must be of an integrated nature, thinking care of all the materials involved and not giving the coatings the sole responsibility of protecting the surfaces from possible damage. An interesting “teaching” from FCA also for products used in less demanding environments.

Matteo Aglio, director of Federchimica/AVISA, entered into the area of the coating formulation where there are rules that all producers are called to know and respect. But in this complex and evolving scenario it is also important to play in advance, both to properly develop the coating formulation before the entry into force of a certain regulation and to be able to express needs and technical data that may then be useful in defining any regulatory considering possible restrictions to the use of certain substances.

Davide Niego from DSM and Lorenzo Paniccia from ICA introduced the topic of environmental sustainability. The “**bio-revolution**”, as defined, provides for the increasingly massive use of raw materials that no longer derive from fossil sources (oil) but which come from biomass. This change comes from the need to reduce the production of greenhouse gases that are rapidly leading to climate changes with an irreversible risk to upset our world. The two reports have made evident the problems underlying this revolution and which concern, on one hand, the research of

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“sustainable” biomasses that do not compete with the food supply chain and, on the other, the formulation of products in line with market expectations. Therefore, bio-based resins and coating materials are now introduced to the market with the conviction that sensibility and future regulations will also look at these issues.

Federico Galvan of Adler W.L. dealt with the theme of **self-healing** water-based paints. These products contain special micro-spheres filled with liquid resin which, at the time of a coating break caused by accidental events (such as hail, for example), open up to repair and protect the affected area. It is an innovation that also seeks to improve the image of wood, giving it an interesting modern and innovative technological value.

Berta Vega Sanchez from Covestro illustrated the **progress in the formulation of water-based coatings**, dealing, in particular, with the formulation of a new generation of isocyanate-based hardeners for two-component products that result in faster curing while at the same time guaranteeing superior performance of the dried film.

The session dedicated to the equipment was opened by **Dario Corbetta of ACIMALL** who remembered in his presentation how Italian producers are always at the forefront in this sector representing a reference point for the whole world also for the innovative capacity.

Stefano Tibé from Giardina Group presented the **excimer** technology, which involves the use of a special lamp that emits ultraviolet radiation below 200 nm and drying the coating in a completely inert atmosphere due to the presence of nitrogen. The results in terms of aesthetics (very low gloss) and hardness are remarkable, thus opening new horizons for industrial finishing.

Gloria Valtorta and Roberto Finetti from SCM dealt with the theme of light-curing coatings induced by LED lamps. The replacement of traditional UV lamps with **LED** lamps undoubtedly leads to various benefits, especially in terms of energy savings, considering that most of the energy produced by the former is dissipated as heat. As with all innovations, this new challenge, however, is not free from difficulties that concern, in particular, the different wavelengths to which the new lamps emit. The development of the formulations with the use of specific photoinitiators is therefore fundamental to fully exploit the undoubted advantages of this technology.

Silver Santandrea of CEFLA has closed this session illustrating the potential of an innovative system for **digital printing and 3D finishing**. It is the combination of several systems that in an integrated way can copy

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and reproduce the aesthetic effects (drawing, color) as well as three-dimensional of wood starting from neutral surfaces. It is essentially a multi-stage system: image scanning to be reproduced, digital printing, application of photo-curable coatings, application of special inks for the creation of the three-dimensional effect and final drying. A new way of “open-pore” coating reproducing this effect completely.

The seminar ended with a round table entitled “**Conversation on the infinite future universe of wood surfaces**” moderated by **Patricia Malavolti (Verniciatura del legno)** and **Luca Rossetti (Xilon)**. The speeches by **Maurizio Carrer (TAKA)**, **Alessio Ferluga (Material Scan / University of Trieste)** **Davide Zanardo (Home Kitchen)**, **Irene Dardani (HDG)** and **Gianni Giardina (Anver)** have ranged between the treatments of wood surface modification (acetylation), powder coating, the difficulty of offering finishes with a low environmental impact to the market up to the provocation of replacing coating materials with other finishing materials, an all-round analysis that ended the day having really taken stock of many open topics in this area.

See you next time!

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