

Press release (short version)
Press release (long version)
Photos of the congress

nova-Institute GmbH (www.nova-institute.eu)
Huerth, 10th January, 2012



Upbeat Cologne WPC congress – two-figure growth in WPC production and exciting innovation awards for Evonik, Möller and Werzalit

With nearly 300 participants from 21 countries and 30 exhibitors, the 4th German WPC Congress held in Cologne (13th-14th December 2011) once more lived up to its reputation as the industry's leading European event. Organiser nova-Institut and sponsors Reifenhäuser, Werzalit, STAEDTLER and BASF (Innovation Prize) expressed enormous satisfaction, and the sector remains extremely upbeat.

The European market for Wood Plastic Composites (WPCs) has been growing at an average annual rate of 35% since 2005. Given the current levels of investment in expanding production and growing interest from both trade and consumers, the industry is optimistic about the future and expects continued two-figure growth over the next few years.

In 2010 roughly 220,000 tonnes of WPCs were produced in Europe (some 100,000 t in Germany) and also sold in Europe, of which about 50,000 t were used in the automobile industry and 167,000 t in the area of terrace flooring (WPC decking has a market share of about 15% in Germany), fencing and cladding. More and more WPC materials are being used for furniture and office and home utensils (cutlery, compost bins, toothbrushes, etc.), along with small technical parts and casings. Altogether, however, the 2010 sales volume of these items is likely to remain below 5,000 t.

Further substantial growth is expected in every sector in the coming years. WPCs are predominantly used in applications that emphasise product characteristics such as great rigidity and low shrinkage (compared to pure plastics) and better durability and mouldability (than pure wood products). However, as prices for plastics rise, it is only a matter of a few years before WPC pellets are cheaper than pure plastic pellets (they are presently 20-30% more expensive) and can then conquer mass markets.

Winners of the WPC Innovation Prize – Evonik, Möller and Werzalit

The presentation of the 'WPC Innovation Prize', which was sponsored this year by BASF Color Solution Germany GmbH in its third year of existence, was eagerly awaited. Never before had there been so many and such high-quality submissions – a sign of the industry's growing professionalism and dynamism. The congress's advisory board drew up a short list of six innovations, which the respective firms presented to participants through a short lecture and other elements in the exhibition hall. The audience then voted for their favourites.

1st place: Evonik Industries AG - PLEXIGLAS® Wood PMMA-wood composite

Carlo Schütz from Evonik Industries AG, one of the world's leading PMMA producer with its 'Plexiglas' brand, was the most convincing of all the contestants and was able to win over an audience of experts. In cooperation with Reifenhäuser GmbH & Co. KG, the company developed a pure PMMA-wood composite that could be used to produce directly extruded profiles. Evonik says that the new material 'takes WPCs to a whole new level in terms of weather resistance, colour stability, dimensional stability and technical strength'.

Evonik has not yet decided whether to start producing decking made from PLEXIGLAS® Wood itself or to do it by licensing. Fundamentally, however, the material will later be made available for other applications.

2nd place: Möller GmbH & Co. KG - WPC noise protection profile

Michael Mette of Möller GmbH & Co. KG was placed second for their WPC noise protection profile. The new product was a result of a joint project involving the Cracow Academy of Mining and Metallurgy, the University of Bydgoszcz and Möller-Polska z.o.o. The WPC profile components are weather- and salt-resistant, and their simple plug-on system with profile widths of up to 6 metres saves on-site assembly work. The inner damping performance of the WPC material has been put to good use and combined with a specially developed surface design that scatters sound. The noise insulation system is suitable for soundproofing streets and industrial installations.

3rd place: Werzalit GmbH + Co. KG - Process technology for in-mould coating of injection-moulded WPC parts

Jörg Golombek was delighted at having come third with Werzalit GmbH + Co. KG's joint project with Hummel-Formen GmbH, Reholz GmbH and the Verein zur Förderung der Kunststofftechnologie e.V. in Paderborn. Together they developed a process technology for the single-step, in-mould decoration and backing of genuine wood veneer. Using this method it is possible, for the very first time, to apply a genuine wood veneer to large, 3D heavily warped contours in one single step. The WPC material offers properties such as low shrinking and warping, and the company was able fully to exploit these technological advantages.

As usual, the Innovation Prize was awarded during a festive evening ceremony before the gala buffet dinner. Werner Tschersich, Managing Director of BASF Color Solutions GmbH, showed his enthusiasm during the prize-giving ceremony: 'We are very honoured to sponsor this year's Innovation Prize. We are heavily involved in WPCs and are delighted to have been able to contribute to this congress.'

You can find a complete list of participants as well as further information (e.g. about the companies nominated for the Innovation Prize) at www.wpc-kongress.de

All the presentations made at the congress will also be published here from the end of January. Access is free for WPC congress participants and costs €100 (plus 19% VAT) for everyone else.

Responsible according to the German Press Law

Dipl.-Phys. Michael Carus (Managing Director) nova-Institute for Ecology and Innovation, Chemiepark Knapsack, Industriestrasse 300, 50354 Huerth (Germany), www.nova-institute.eu, contact@nova-institut.de, +49 (0) 2233-48 14 40

Press release (long version) – Please feel free to print word for word

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European market data

The European market for Wood Plastic Composites (WPCs) has been growing at an average annual rate of 35% since 2005. Given the current levels of investment in expanding production and growing interest from both trade and consumers, the industry is optimistic about the future and expects continued two-figure growth over the next few years.

In 2010 roughly 220,000 tonnes of WPCs were produced in Europe (some 100,000 t in Germany) and also sold in Europe, of which about 50,000 t were used in the automobile industry (mainly compression moulding) and 167,000 t in the area of terrace flooring (WPC decking has a market share of about 15% in Germany), fencing and cladding (mainly extrusion). More and more WPC materials are being used for furniture and office and home utensils (cutlery, compost bins, toothbrushes, etc.), along with small technical parts and casings (mainly die casting). Altogether, however, the 2010 sales volume of these items is likely to remain below 5,000 t.

Further substantial growth is expected in every sector in the coming years. WPCs are predominantly used in applications that emphasise product characteristics such as great rigidity and low shrinkage (compared to pure plastics) and better durability and malleability (than pure wood products). However, as prices for plastics rise, it is only a matter of a few years before WPC pellets are cheaper than pure plastic pellets (they are presently 20-30% more expensive) and can then conquer mass markets; this was Ingomar Henning from Rotho Kunststoff AG's message to the congress. The WPC sector has matured in recent years to a point where, from a technical perspective, there are no longer any obstacles to its servicing a mass market. Made up of 20-80% bio-based material, wood plastic composites represent the largest group of new bio materials by volume, significantly outstripping bio-based plastics.

US and Chinese market data

This advantage becomes even clearer when one considers the international figures. The USA is currently in pole position with a production volume of approximately 1.5 million tonnes of WPCs. However, growth has slowed in recent years due to quality problems with decking. The Russian American industry expert and author Anatole Klyosov told the congress about numerous complaints in the past few years that have led to seven-figure compensation claims against several US manufacturers both in and out of US courts. The number of manufacturers has fallen from 27 to 16 over the same period. Quality has significantly improved and is now up to European standards, which were set deliberately high at an early stage through the creation of the Association of the German Wood-based Panel Industries' (VHI) quality mark. Dr. Peter Sauerwein announced to the congress that the quality mark criteria were currently being tightened. One particularly dynamic market for WPCs is China. 700,000 t of WPCs were produced there in 2010 – and this volume is projected to rise to 5 million tonnes by 2015, which would make China the largest WPC producer in the world. Entire houses are made from extruded WPC panels in China and even the doors are fully extruded. The approximately 300 WPC manufacturers in China use wood flour as well as lignocellulose-rich crop residues such as rice straw and rice husks as raw materials.

The congress

At the congress, there were presentations and discussions about current topics, developments and trends related to WPCs. An extended congress advisory committee including representatives of manufacturers, the scientific community and the press selected the presentations to ensure adequate coverage of topics of concern to the industry. The result was a programme that packed 26 lectures into two days.

The almost 300 congress visitors and 30 exhibitors, the partners and sponsors all expressed their satisfaction with how the 4th German WPC Congress in Cologne had gone, for they saw it not only as the largest and most

important WPC event held in Europe in 2011 but also found the positive and cooperative atmosphere at the congress very infectious. Andreas Thies from sponsor STAEDTLER Mars GmbH & Co. KG put it in these words: *‘Compliments to you and your team for such a successful congress that provided fantastic content and lots of new contacts, ideas and topics for many years of development work! What is more, you don’t often get the chance to round off a congress with a little concert, which we all enjoyed a lot!’*

Mr Thies was referring to the WPC instruments made by Heikki Koivurova from Tona Innovation Center (TONIC) in Finland. Mr Koivurova develops special WPC combinations as substitutes for rare tropical hardwoods without any loss of sound quality. Less warpage means that the instruments do not need to be retuned after a change in temperature. Koivurova brought a violin and an electric guitar with him for demonstration purposes, and participants were able to have a look for themselves during the coffee break.

Winners of the WPC Innovation Prize – Evonik, Möller and Werzalit

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Pictures from the WPC congress in Cologne (please respect the details about each photographer)

The pictures can be downloaded from the following link:

http://www.nova-institut.de/PM/12-01_Bilder_WPC_PM.zip

- **11-12-13 Preisubereichung_ti.JPG:** WPC Innovation Prize presentation: Werner Tschersich (right), Managing Director of BASF Color Solutions Germany GmbH, sponsor of the Innovation Prize, makes the presentation to Carlo Schütz (left), leader of Architecture Group Performance Polymers for Evonik Industries AG. (Photo: Dr. Thomas Isenburg)
- **11-12-13 WPC-Gewinner_all_nova.jpg:** Congratulating the winner, from left to right: Michael Carus (nova-Institute), Jörg Golombek (Werzalit GmbH + Co. KG), Michael Mette (Möller GmbH & Co. KG), Carlo Schütz (Evonik Industries AG), Dr. Tim C. Pohl (Reifenhäuser Extrusion GmbH & Co. KG) and Werner Tschersich (BASF Color Solutions Germany GmbH). (Photo: nova-Institute)
- **11-12-13 WPC-Kongress_nova.JPG:** View of the congress venue (Photo: nova-Institute)
- **Paneel PMMA04 evonik1.JPG:** Evonik Industries AG – Wall from PLEXIGLAS® Wood PMMA-wood composite (Photo: Evonik)
- **Paneel PMMA04 evonik2.bmp:** Evonik Industries AG – Wall from PLEXIGLAS® Wood PMMA-wood composite (Photo: Evonik)
- **Farben PMMA05 evonik.jpg:** Evonik Industries AG – Wall from PLEXIGLAS® Wood PMMA-wood composite, Colour examples (Photo: Evonik)
- **Schallschutzprofil_querschnitt_10 moeller.tif:** Möller GmbH & Co. KG – WPC noise protection profile (Foto: Möller)
- **Schallschutzprofil_schnitt_wpc moeller.jpg:** Möller GmbH & Co. KG – WPC noise protection profile (Photo: Möller)
- **Buerostuhl Werzalit.jpeg:** Werzalit GmbH + Co. KG – Office Chair with in-mould coating of injection-moulded WPC parts (Photo: Werzalit)