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International Design Trends Spring Summer 2012 Part One

Colour in Architecture
New Looks for Exhibitions
Market Focus: Sweden
Digital Design
Omer Arbel Interview

THE MAGAZINE FOR COLOUR, DESIGN & TRENDS FROM GLOBAL COLOR RESEARCH™

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Material ADVANCES

Ecor Flatcor



Flextrus PaperLite® www.flextrus.com

Flextrus PaperLite®



Eco Cradle

Eco HPL



2010 proved an exciting year in the development of new materials and to honour particular achievements, Material ConneXion has just announced the winners of its annual MEDIUM Awards.

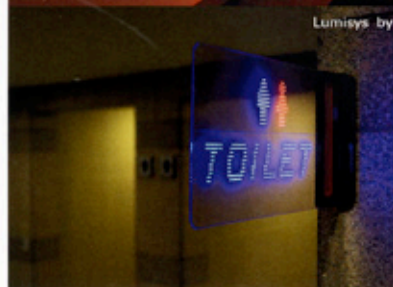
Material ConneXion is a global materials consultancy built on the belief that 'Every Idea Has A Material Solution™'. Working with Fortune 500s, smaller forward-thinking companies, and government agencies seeking a creative, competitive, or sustainable edge through strategic material selections, the company also holds an influential annual Medium Awards to find the most exciting material of the year. The award recognises materials juried into the company's exhaustive materials library in 2010 that demonstrate outstanding technological innovation and the potential to make a significant contribution to the advancement of design, industry, society and economy. In addition to the winner, the company also recognised nine honourable mentions, exemplary material innovations that will change the way we design in 2011, from product and packaging to architecture. "The year in material innovation reveals a continuing drive for sustainability," says Dr. Andrew H. Dent, vice president, Library and Materials Research at Material ConneXion, adding, "whether it's through a clever substitution of natural materials, improvements to existing ideas, or a manipulation of high-tech processes, these tougher economic times are seeing a turn to simple, creative and powerful innovations that will help lessen our impact on the planet."

The clear winner for 2011 was Novacem's Carbon Negative Cement, a

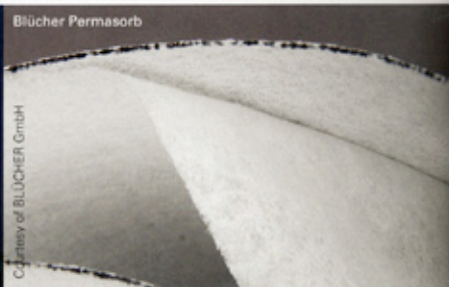
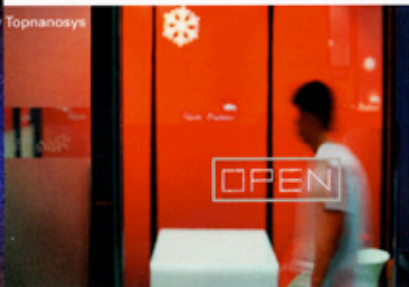
revolutionary solution to reducing carbon emissions in the construction industry. By replacing the calcium carbonates used in cement formulation with magnesium silicates, and by using a low-temperature production process that runs on biomass fuels, Novacem has developed a new class of cement that offers performance and cost parity with ordinary Portland Cement, but with a negative carbon footprint. "Concrete constitutes the greatest amount of man-made material on this planet, one that is claimed to contribute to 5 per cent of humanity's carbon footprint," says Dr. Dent. "With a simple change of ingredient, Novacem has achieved what could be one of the single largest reductions in CO2 emissions in construction to date. This carbon negative cement reduces carbon emissions of poured concrete from 800Kg emitted per ton to 50kg absorbed per ton."

Like Novacem, the nine honourable mentions from all over the world also represent some of the most important recent material developments on a global scale. Among them is Dekodor's ECO-HPL, the world's first high-pressure laminate made without the use of phenol formaldehyde resins, and Blücher's Saratech® Permasorb Wallpaper, a durable wall covering that removes toxins embedded in wall surfaces and safely contains these chemicals over time.

Great advances in sustainable packaging can be seen in materials like Evocative's



Lumisys by Topnanosys



Blücher Permasorb

Courtesy of BLÜCHER GmbH



EcoCradle™, a biodegradable alternative to Styrofoam made of mushrooms grown from farm waste, and in Flextrus' PaperLite, a thermoformable paper sheet made with renewable resources that offers a replacement to plastic food containers. Henkel's Mirafoil is a low-impact liquid coating used to create brilliant, metallic graphics on numerous types of packaging substrates, and MicroGREEN's Ad-Air® is an innovative technology that inflates plastic sheets with waste CO² to expand size and density while maintaining strength, thus reducing the amount of plastic material needed in packaging applications.

Other honourable mentions showcase remarkable properties that will help lower environmental impact in products, display systems and signage. Milliken's Hyperform is a breakthrough nucleation agent cited for its ability to create stronger, lighter and more recyclable commodity plastics. Top Nanosys' Lumisys™ demonstrates a pioneering use of carbon nanotubes to achieve a transparent, flexible LED signboard; an innovation that allows for greater efficiency and aesthetic capabilities in advertising and electronics. There is also ECOR's FlatCOR™, a new line of pressure-moulded boards comprised of wood fibre, agro-fibre, and post consumer and animal waste. The material, which is made without the use of chemicals as adhesives, can be used for furniture construction, display units, signage and toys.

If you want to see these materials first hand, Material ConneXion is holding an exhibition of the MEDIUM Award for Material of the Year 2010 winner and honourable mentions in its New York City showroom from 15 March – 29 April 2011.



MicroGreen Ad-Air Tech



Milliken Hyperform



Mirafoil



MEDIUM Award for Material of the Year 2010 WINNER

Novacem Limited Carbon Negative Cement: This winning material is a new type of concrete that replaces the calcium carbonates used in ordinary Portland cement with magnesium oxides and silicates, a simple change of ingredient that has the potential to offer one of the largest reductions of CO² emissions seen in construction to date.

<http://novacem.com>



Novacem

HONOURABLE MENTIONS

Evocative Design LLC ecocradle™: This has been cited as an innovative, sustainable and cost-effective alternative to packaging produced with petrochemical based materials. www.evocativedesign.com

MicoGreen Polymers Inc. Ad-Air Technology: This material injects polymer sheets with waste CO², expanding sheets of plastic to double the thickness while reducing density by 20 per cent. The strength and durability of the plastic is maintained, but material usage is ultimately reduced by as much as three times. www.microgreeninc.com

Milliken Hyperform®: This is a breakthrough nucleation agent that makes it possible to create stronger, lighter, more recyclable, sustainable, and better looking commodity plastics. The additive is harmless to humans and offers considerable advantages over standard glass fibre reinforcements. www.clearpp.com

Dekodur GmbH & Co. KG ECO-HPL: This is the world's first high-pressure laminate made without the use of phenol formaldehyde resins. ECO-HPL's core is comprised of 100 per cent biological secondary components obtained from renewable resources, and its binding agent is made from sugarcane resin. www.advtechnology.com

Blücher GmbH Saratech Permasorb Wallpaper: Offering all the expected qualities of a standard wall covering, this is made with Blücher's Saratech® spherical adsorbents and is able to remove toxins embedded in wall surfaces, such as PCBs and formaldehyde, and safely contain these chemicals over time. www.bluecher.com

Flextrus AB PaperLite: This is an innovative and sustainable alternative to traditional plastic packaging. These thermoformable and biodegradable paper sheets, sourced from FSC certified forests, offer excellent aesthetic and performance capabilities to suit a wide range of applications, from food packaging to industrial products. www.flextrus.com

Topnanosys, Inc. Lumisys: Pioneering use of carbon nanotubes has achieved a level of transparency and flexibility never before seen in the lighting and signage industry, with a wide range of applications, from advertising and architecture to transportation and consumer products. www.topnanosys.com

Henkel MiraFoil®: This is a low-impact and sustainable alternative to foil board laminating and hot foil stamping that produces equally brilliant and lustrous metallic effects. This UV cure printable foil coating achieves the same effect on printed surfaces and is 100 per cent recyclable. www.henkel.com

ECOR - Noble Environmental Technologies Corporation FlatCOR™ Flat Boards: These pressure-molded flat single and multi-ply boards are made using raw materials such as wood fibre, agro-fibre, and post-consumer waste. Water, instead of chemical resins, is used as the distribution medium for forming the fibres into a mat. Applications include furniture, toys, display units and signage. www.ecorglobal.com