



PRESS INFORMATION

19 winners of the 5th MATERIALICA Design + Technology Award 2007

On October 16, 2007, the MATERIALICA Design + Technology Award will be granted for the fifth time on the occasion of the trade fair MATERIALICA. Chaired by Christian Labonte (Design Strategy AUDI AG), the independent specialist jury consisting of seven members has determined 19 award winners from a total of 81 international submissions in a non-public session. Moreover, the jury granted a Best-of-Award in each category.

The MATERIALICA Design + Technology Award is granted to concepts characterized by a great deal of creativity in terms of innovation, design or engineering achievements in the categories Material, Surface/Technology, Product and Student. This year, 6 products from the material category, 4 from the surface category, 6 from the product category and 3 from the student category were awarded. The renowned award is held by MATERIALICA, the specialist trade fair that has become a synonym for material and supplier-driven product innovations for material applications, surfaces and product engineering for the automotive, aerospace, engineering, medical technology, sports and consumer goods industry for ten years.

Material developers, material manufacturers, designers, product manufacturers, engineers and construction engineers from the fields of material applications, surface technology as well as manufacturing and processing technology were invited to participate in this international award. The annual award, which has been held since 2003, seeks to outline the importance of materials for industrial design-oriented applications, to encourage a dialog between designers and manufacturers and to promote new ways of combining pioneering materials, design, technical precision and excellent design for industrial and consumer goods.

„The MATERIALICA Design + Technology Award assumes an outstanding position in the landscape of international design awards. On the one hand, it addresses everyone who has the potential of creating “something new”. This includes technicians, designers, material researchers and students. All winning products since 2003 are characterized by a very high standard. On the other hand, technologically important innovations have increased in numbers and are now available for useful applications for everyday use. The MATERIALICA Design + Technology Award is located at the interface and is thus of great interest to me as a design strategic of the automobile industry”, says Christian Labonte, Design Strategy AUDI AG and Chairman of the jury.

The award ceremony and announcement of the winners of the Best-of-Award will take place on October 16, 2007 on the occasion of the MATERIALICA trade fair. The products of all award winners will be presented at a DesignShow and will remain on site during the trade fair from October 16 through 18.

Tickets for the award ceremony and Design Show can be ordered at www.materialica.de/html/registrierung.html at a discounted price.

Award ceremony: October 16, 4 p.m.

Design Show: October 16 through 18, 2007, daily from 9 a.m. to 5 p.m.

Location: New Munich Trade Fair Centre, Hall C4, Entrance North

JURY MEMBERS

Christian Labonte (Design Strategy AUDI AG) was this year's Chairman of the jury. He was assisted by **Prof. Dr.-Ing. Alexander Horoschenkoff** (Munich University of Applied Sciences, faculty for engineering, aircraft and vehicle technology), **Dr.-Ing. Christoph Konetschny** (Managing Director materialsgate), **Robert Metzger** (Managing Director MunichExpo Veranstaltungen GmbH), **Prof. Peter Naumann** (Munich University of Applied Sciences, industrial design faculty), **Herbert H. Schultes** (designer) and **Marc S. Velten** (Manager „Advanced Design“, EADS Corporate Research Center).

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WINNERS OF THE CATEGORY MATERIAL

TURANE RESINS

Material: Composite material from epoxy resin and polyurethane

Manufacturer: DSM Composite Resins AG, Switzerland

Contact: www.dsmcompositeresins.com

Turane combines the characteristics of epoxy resins and polyurethane in one composite material. The material has excellent mechanical properties, is heat-resistant and has excellent adhesive power for fibre reinforcement. The chemical properties ensure quick drying and processing via vacuum resin injection. Turane is an interesting alternative to epoxy resins in terms of environmental compatibility and a more economic processing.

NATURA FACADE PANEL

Material: Fibrated concrete

Manufacturer: Eternit AG, Germany

Contact: www.eternit.de

The milling and casting technology developed by Eternit enables a uniform color application on surfaces as opposed to conventional spray coating. At the same time, it accentuates the specific color and material properties of fibrated concrete. A total of 42 translucent inks in different color shades are available that are based on grey- and anthracite-colored fibrated concrete panels.

HYBRIX™

Material: Stainless steel micro-sandwich

Manufacturer: Lamera AB, Sweden

Contact: www.lamera.se

Hybrix™ is a very thin (1 - 2 mm) stainless steel micro-sandwich. The material is hollow and contains

air and millions of microscopic steel fibres that bind the surfaces together. The unique structure of the individual steel fibres makes the material strong and light (1.5-3.9 kg/m²). The material weighs less than half as much as conventional stainless steel sheets and is formable using a conventional metal press or hydro forming tools. Moreover, it can be shaped and bent for more creative freedom, particularly for the design of portable consumer goods.

BACKPLATE

Material: Glass metal composite
Manufacturer: lif GmbH, Germany / Schott AG, Germany
Contact: www.lif-germany.de
www.schott.com

BackPlate is a completely new means of mounting glass without having to clamp it or drill holes in it. Mounting takes place by making use of the flat metal piece that protrudes from the glass. This results in a glass-to-metal bond that is not subject to tension. Applications are: Interior glass constructions and glass structures that prevent falls.

Rieber Thermoplates

Material: Multilayer metal made of aluminum and stainless steel
Manufacturer: Rieber GmbH & Co. KG, Germany
Design: Pearl Creative, Deutschland
Contact: www.pearlcreative.com
www.rieber.de

The thermoplates consist of Swiss-Ply, a multilayer material made of stainless steel and aluminum. It automatically controls and maximizes the temperature during induction cooking at the critical threshold temperature of 250 °C. This prevents an unhealthy overheating of the coating and an impairment of the food that is processed. The thermoplates are manufactured in a standard that meets all requirements of the restaurant and catering industry. The dishes can be transported in the very same containers after cooking.

MultiQ®

Material: Thermoplastic composite sandwich
Manufacturer: Quadrant Plastic Composites AG, Switzerland
Contact: www.quadrantcomposites.com

The core of the fibre-reinforced sandwich consists of SymalITE, a composite lightweight material on the basis of glass fibres and polypropylene fibres, the top surfaces consist of high-strength GMTex, a glass mat-reinforced polypropylene that is additionally reinforced with a glass fabric. The surface of the new compound is homogeneous, smooth and free of pores. It can be nailed like wood, bolted together, sawed or processed in different ways. When used as sheeting panel, its service life of between 60 and 80 usages for conventional wood panel systems can be increased to 200 usages. Plus, this material is fully recycable.

WINNERS OF THE CATEGORY SURFACE

muv.man

Material: Flocking of PU soft integral foam
Manufacturer of flocking: Hella Priem Beflockungs GmbH, Germany
Manufacturer of chair: Aeris Impulsmöbel GmbH, Germany
Design: Gecco Vision, USA
Contact: www.beflocker.de
www.aeris.de
www.gecco-vision.com

As well as surfaces made of textile, paper, metal and film, three-dimensional objects made of all basic materials can also be flocked. According to the selected fibre length different surface structures, from

soft to hard abrasive, are achieved. For the chair *muv.man* the flocking was applied for a robust, ductile surface which impresses in terms of colour and also haptics on a seat body made of PU integral foam.

Intermedullary nail with locking bolt

Material: Composite with metal surface coating
Manufacturer: Icotec AG, Switzerland
Contact: www.icotec.biz

The goal of metallic surface coating (titanium, niobium, tantalum) is to considerably improve the regulated bonding with long-term implants. With the coating of the angle-stable locking bolt the power transmission is optimised because in the coating area the bone ingrows and the power from the bolt is transmitted directly to the bone. The intermedullary nail itself remains uncoated so that a removal can be carried out without causing harm and without damaging the tissue. The advantages of the composite implants compared with metal implants remain: x-ray transparency, fatigue strength and freedom of design with the construction of the implant, and here the implant can be constructed optimally to be in line with the human body.

ergonomic textile composites

Material: Textile/leather gel composites
Manufacturer: Strähle + Hess GmbH & Co. KG, Germany
Contact: www.straehle-hess.de

ergonomic textile composites were developed for vehicle interiors. They offer new possibilities of ergonomic contour design with freely selectable forms and positions. Here the material combinations can consist of leather/gel, leather/textile/gel or textile/gel. ergonomic textile composites have outstanding form stability, very good insulation and pressure distribution and enable individually adjustable degrees of hardness with very good light fastness. Possible areas of application: automotive, aviation, railway, shipping.

Vinterio Stratus / Vinterio Nimbus

Material: Real wood veneer
Manufacturer: Vinterio AG, Switzerland
Contact: www.vinterio.com

Danzer Group's newest wooden surface, Vinterio, has numerous advantages over conventional wooden surfaces and delivers many benefits to customers. It opens up a whole new world of decorative applications by creating fine wooden surfaces with an entirely new, unique look that has not been available until now. The number of individual, exclusive surface designs that can be created with Vinterio is almost unlimited. At the same time, surface patterns can always be repeated in exact detail and with the highest quality. Nevertheless, Vinterio is manufactured completely from selected fine woods with consistently high quality. Strictly quality demands on the raw material ensure a balanced and high quality look. Furthermore, the wooden surface is user friendly to work with and easy to process. Vinterio comes as a cut-to-size product in standard dimensions, which provide users with a reliable calculation basis. Yield and material costs can be calculate accurately, which makes processing significantly more cost efficient compared to conventional wooden surfaces. Vinterio offers also reliability with respect to environment. The glue joints in the wooden surface contain no formaldehyde. Certifications ensure all Vinterio products are from verifiable sources and have been processed reliably. For example, all Vinterio plants are chain-of-custody certified in accordance with FSC, PEFC or SFI. Vinterio is available in two product lines: "Stratus" and Nimbus." Stratus is made from a single wood species, while Nimbus combines various wood species.

WINNERS OF THE CATEGORY PRODUCT

Punch (collection)

Material: Tarpaulin material with fabric carrier
Manufacturer: Bree Collection GmbH & Co. KG, Germany

Design: Ch. Reichert / I. Pop / D. Kelm / Bree Design Team
Contact: www.bree.com

The bag series PUNCH is 10 years old. On the occasion of the anniversary BREE has developed the collection further and added new products. With clearly high-grade and modern processing the industrial, highly sturdy tarpaulin material has been made slightly thinner and is therefore even lighter. A collection has been created that impresses with processing appropriate for the material and a minimalist and functional design.

Full glass railing GM Railing Plan

Material: Aluminium, glass
Manufacturer: Glas Marte GmbH, Austria
Contact: www.glasmarste.at

With the technically high-quality construction all fitting parts made of aluminium are integrated behind the glass pane in the construction. After the installation the railing merges with the substructure and gives the impression of an apparently invisibly secured glass pane. GM RAILING Plan consists of 2 main components: the substructure section and the mounting section. Thanks to the separation of the fittings the substructure section does not need to be disassembled for service work.

SwitchMobility Luxx

Design: Industrial PDD GmbH & Co. KG, Germany
Manufacturer: Switch Mobility GmbH, Germany
Contact: www.i-pdd.com
www.switchmobility.com

The Luxx is a no emission mobility product in the low-cost range. The different components of the Luxx are made by, among other procedures, aluminium sand casting (in the long term, however, this is going to be switched to pressure casting), injection die casting, deep drawing processes and PU casting processes. The material mix ensures good installation conditions with optimum cost reduction and great flexibility with the definition and alignment of the tools. The matt powder coating is highly impervious to hits and scratches and conceals irregularities in the surface from sand cast parts very well. The design and technology used enable it to be turned on the spot and moved sideways.

Inglas Deko Wild Vine

Material: Laminated safety glass with integrated wild vine
Manufacturer: Inglas GmbH & Co. KG, Germany
Contact: www.inglas.de

Inglas Deko Wild Vine is a laminated safety glass with integrated décor material. It is constructed out of two thermally pre-stressed glasses and prepared tendrils of wild vine in the area of the composite adhesive. In order to achieve a spatial (3D) effect, the vine tendrils are positioned in different levels of the composite adhesive (polyvinyl butyral). Typical applications of Inglas Deko Wild Vine are shower walls, partition and back walls and pieces of furniture and table tops.

Resofix®

Material: Poly-D, L-Lactide
Manufacturer: Resoimplant GmbH, Germany

The RESOFIX system has been developed for minimal invasive arthroscopic “key-hole surgery”. The resorbable 2-shell expansion bolt is used for the fixation of transplanted crucial ligaments in the bones of the thigh and lower leg. The parallel inclination of the bolt halves gives a secure hold which is guaranteed for the time it takes the transplant to heal. The duration of the stability of the RESOFIX bolts and the time of the complete resorption can be determined by the lactide composition. After healing is complete (after two years at the latest) the polylactide of the current RESOFIX bolts is resorbed completely without residue by the body’s own metabolism.

Stone ski

Material: Composite material: wood, stone, carbon
Manufacturer of material: Techno Carbon Technologies, Germany
Manufacturer of ski: Zai AG, Switzerland
Contact: www.technocarbon.com
www.zai.ch

With a special surface coating procedure consisting of carbon fibre laminate, Techno Carbon Technologies is able to make natural stone bendable and elastic. The Swiss ski manufacturer Zai has made use of the new properties of stone and developed the first ski with a core made of gneiss from Graubünden. The advantages are that stone absorbs the vibrations of the ski, and this gives it tremendous running smoothness and grip. Quick and precise edge-to-edge changes are a joy. The strain remains minimal and at the same time the ski remains on course like on tracks.

WINNERS OF THE CATEGORY STUDENT

Fully variable intake system

Material: Carbon fibre-reinforced plastic, aluminium
University: Munich Technical College, Department of Mechanical Engineering, Aviation Technology and Automotive Engineering, Prof. Alexander Horoschenkoff
Student: Tobias Maurer, Salmdorf
Contact: www.fhm.edu
www.fhm-racing.de

The intake system of the new car of the FHM racing team consists of aluminium and 80% carbon fibre-reinforced plastic. The system works according to the principle of a rotary slide valve control where a pivoted roller inside the airbox body is equipped with flow windows which, depending on the angle position of the roller, release the flow cross-sectional area at a particular position of the radially running intake pipes. The function is ensured with a self-programmed micro-control switch and the corresponding self-programmed software.

Piezo-electric converter

Material: Piezo ceramic, plastic
University: Braunschweig Academy of Fine Arts
Student: Nicole Schmiedel
Contact: www.hbk-bs.de
www.hbk-bs.de/home/cor.html

COR is an energetically autarkic insulin pump for type 1 diabetics between 13 and 50 years old. The piezo-electric converter absorbs the slightest kinetic energy of the carrier as mechanical energy and converts this into electrical energy. For this application the converter "DuraAct" from INVENT GmbH is used. The insulin pump COR is much more advanced than the existing models thanks to the new arrangement of the elements and the sensible use of new technologies. It is a long-lasting and future-oriented product which considerably improves the lives of diabetics with the innovative use of converters.

Lounge Landscape

Material: 3D polyester knitted fabrics, glass fibre-reinforced sandwich
University: Offenbach College of Design, Prof. Achim Menges
Student: N. Burggraf, S. Hoffmann, St. Reichert, N. Reinhardt, Y. Xu
Contact: www.hfg-offenbach.de

"Lounge Landscape" is landscape-like seating and lying furniture which stands out because of two innovative aspects: a new composite material made of three-dimensional nylon knitted fabrics in a glass fibre sandwich which stands out thanks to its high sturdiness and also lightness. And the specific geometry of the surface which enables a whole range of different individual objects to be produced which can all be manufactured from the same original form.