

# go!

Edition 1 · 2010

## Footwear News

 **BASF**

The Chemical Company



### go! comment

Defying the economic crisis, the European branch of BASF Polyurethanes shoe development has maintained its leading position in 2010 in technological development and creative design in close cooperation with the shoe industry. A particularly fine example of the courage to explore new ways, materials and designs has again been the Footwear Design Contest at the Politecnico Calzaturiero in Padua, Italy.

Held now for the third time, it proves once more that the right mix of curiosity, creativity, technical understanding and polyurethane is capable of making the novel, the surprising and sometimes even the spectacular come to fruition. Enjoy your read of the new *go!*

*Dr Johann Diedrich Brand, General Manager, European Business Management Footwear*

## Generation iRIC.

**Cool, really comfortable, sustainable and recyclable – that's how kids' shoes have to be today. And this precisely describes the shoes manufactured by RICOSTA.**

Back in March, visitors to GDS in Dusseldorf had the chance to preview

the latest development of the children's shoe manufacturer from Donaueschingen, Germany. And now RICOSTA is presenting its iRIC concept sandal to the broad public. "Healthy growth with maximum performance" was the guiding

*To be continued on page 3*

# Nonslip, waterproof and heavy-duty.



of its partners. In the development of PU soles for workboots, the Americans are therefore engaged in close cooperation with the development engineers of BASF Polyurethanes.

In this joint effort with the shoe experts of Timberland PRO, exceptionally high standards have been achieved. First, there's the outstanding abrasion resistance ensuring an extra-long life. And then there are the excellent flexural properties for unbeatable wearing and walking comfort and – particularly in extremes of cold – outstanding resistance to sliding on icy surfaces.

For all of these features, Elastopan® Grip Tec was developed at BASF Polyurethanes and proposed as the PU solution for the Timberland PRO. Grip Tec is an extremely flexible, hardwearing and easy-to-process PU shoe sole system.

**With Elastopan® Grip Tec from BASF Polyurethanes, Timberland, the world market leader, is again a big step ahead of the competition.**

Timberland is the world market leader in the design, composition and marketing of top-quality footwear, outerwear and accessories. The first guaranteed waterproof boot of the cult brand was manufactured at its company base in Stratham, New Hampshire, USA, in 1973. It's therefore no surprise that a company that has conquered markets with so much expertise and perfection wants nothing less than the best in the choice

By means of a new chemical composition, Grip Tec now not only matches, but also to some extent surpasses the physical properties of high-performance rubber, while reducing shoe weight significantly thanks to its 30 per cent lower density.

In the development of shoes, Timberland and BASF Polyurethanes have truly become "sole mates". One of them is a globally successful shoe manufacturer who selects only the best components and suppliers for its products. And then there's BASF Polyurethanes, the developer of high-tech sole systems that



The original for men who mean business: waterproof workboot with a steel toe

satisfies even the most challenging requirements of its customers – and surpasses them more often than not.

Contact: [jin.tan@basf.com](mailto:jin.tan@basf.com),  
[johann-diedrich.brand@basf.com](mailto:johann-diedrich.brand@basf.com)

go! exhibition

pure  
perfection.

After the first two successful versions of the pure concept shoe, it's time for the next one at the coming SIMAC: the pure 1.2.

The new model also responds to one of the most pressing issues of our time – that of resource conservation. BASF will present newly developed materials that demonstrate the use of renewable resources in PU.

For all applications, researchers have succeeded in developing TPU and PU systems that, like conventional products based entirely on mineral oil, meet the requirements of today's shoe industry in every respect. So, welcome to the future at **SIMAC, Bologna, from 12 to 14 Oct. 2010.**

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principle for the Swabians in the development of their new children's shoe.

"Blazing the trail for a new generation of shoes" is how RICOSTA Sales Manager Kai Moewes describes the iRIC, which consists of a kit of three parts – walking sole, insole and instep pad. It is designed for kids aged seven to ten years. Thanks to the choice of polyurethane (PU) as its material, the iRIC not only features unique functionality and exceptional wearing comfort, but also impresses with a futuristic design unparalleled in the children's segment. It has also benefited from the experience of the BASF experts from the development of the pure

concept shoe, particularly as far as sustainability is concerned.

All the components of the new iRIC are made entirely of a single class of material, namely polyurethane (PU). This makes the iRIC completely recyclable and hence good news for the environment. Which, in addition to its cool design and outstanding walking comfort, ought to be another persuasive selling point for the ecology-conscious parents of the generation iRIC.

For further information see:

**[www.ricosta.de](http://www.ricosta.de)**

Contact PU systems:

**[johann-diedrich.brand@basf.com](mailto:johann-diedrich.brand@basf.com)**

TPU: **[martin.vallo@basf.com](mailto:martin.vallo@basf.com)**

go! invitation

Putting  
its best foot  
forward.

DESMA is one of the leading sources of injection moulding machines, moulds, automation strategies and services for sole production with PU technology. On September 13 and 14, 2010, an Open House will again be held at its company headquarters in Achim near Bremen, Germany, to which customers and suppliers are warmly invited.

Desma will introduce its new, current machine strategies. BASF will be there with its own booth and present PU solutions, which will also be demonstrated on the machines.

Contact: KLÖCKNER DESMA Schuhmaschinen GmbH, Desmastr. 3-5, 28832 Achim, Germany, Tel.: +49-4202-990 0, Fax: +49-4202-990 210, E-Mail: **[info@desma-tec.de](mailto:info@desma-tec.de)**  
Internet: **[www.desma-tec.de](http://www.desma-tec.de)**





## pure invention.

### The second polyurethane concept shoe also abounds with innovations.

On the successor of the legendary first concept shoe, we've integrated over a dozen new PU applications. Simply because we again decided not to rest on our laurels, however spectacular the achievements, but to go back to the drawing board and break new ground.

The outcome is another big step forward in modern shoe design which – hardly surprisingly – is already outdated. The premiere is at the coming SIMAC in Bologna (see exhibition info box on page 2).

The neon-yellow concept shoe is packed with the accumulated expertise, concentrated knowledge and decades of experience of the experts of BASF Polyurethanes from the fields of polyurethane systems and thermoplastic PU (Elastolan®). From heel to toe, and from sole to upper. Together with specialists from the European shoe industry, they have developed the design, tactile properties and material variants of the over a dozen individual parts. Whereas the emphasis of the first pure was clearly on the design,

its successor concentrated more strongly on materials. And on the third version, at SIMAC, the main focus is on materials sustainability.

BASF Head of Project Dr Johann Diedrich Brand explains: "Our pure is the continuation of our vision of the polyurethane shoe of the future. We want to show how much potential polyurethane has as a universal material for shoe design and shoe development. And we want to demonstrate that we can put ourselves 'into our customers' shoes' at any time, understand their problems and needs, and respond to them in the shortest time."

This is hardly likely to surprise you when you encounter an "old friend" in a new guise at the upcoming SIMAC in Bologna. Once again with unusual optimizations and refinements. And once again with many polyurethane high-tech solutions, just as one has come to expect from BASF Polyurethanes.

And if you happen to be at the EXPO in Shanghai at the moment, then you can also take a closer look at the pure concept shoe at the German Pavilion.



Contact PU systems:  
**johann-diedrich.brand@basf.com**  
 TPU: **martin.vallo@basf.com**

# Around the world on 80 soles.



World run II, at the finish line of the first stage: Cape of good hope

**From the North Cape to Cape Town – from Tierra del Fuego to Newfoundland.** Or, to be more precise: By the time he arrives in Newfoundland in Canada in around October 2012 after clocking up about 40,000 kilometers, Danish ultra-long-distance runner Jesper Olsen will have worn out about 40 pairs of Ecco Biom running shoes with a midsole of Elastoflite®.

50 kilometers per day, from the North Cape down to Cape Town and from Tierra del Fuego up to Newfoundland. This is a distance that will keep even an ultra-athlete like Jesper Olsen on the move for quite some time. His staunchest companions for this unbelievably gruelling journey are his Ecco Biom running shoes with a midsole made of Elastoflite®.

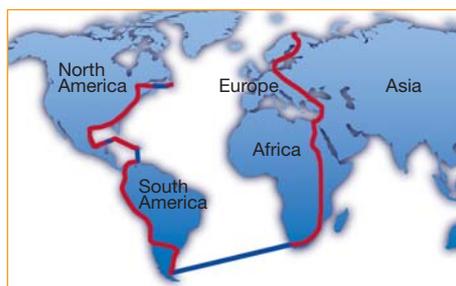
The other star of the run is Ecco Biom with a midsole of Elastoflite®.

The overriding principle at Ecco for the Biom running shoe is: "The foot has to

be able to move as naturally as possible with each stride. In addition: The form of the shoe must adapt completely to the form of the foot – and not the other way round. In view of such strict principles, it's understandable then that only the very best materials will do. Ecco obviously doesn't want to take any risks.

Elastoflite® is light, flexible and durable. Sole systems from BASF Polyurethanes have got what it takes.

Elastoflite® is an extremely light and technically sophisticated sole system for all kinds of midsoles. This three-component low-density PU system is also an astonishing 40 per cent lighter than the usual sole system for midsoles. In addition, independent tests have demonstrated that Elastoflite® shows much lower compression set than conventional midsole materials used in the shoe industry. As a result, the shoe sole retains its properties even after ultra-long running distances (see article "Sole test"). Elastoflite® is a water-blown PU system that can be attached to the upper without adhesives, which makes it extra



World Run II, 4 years – 40,000 km

eco-friendly. So on with what are maybe the world's best running shoes and off you go. But you don't need to run around the world to appreciate Elastoflite®. A jog around the park will do just as well

More about the long-distance runner among midsoles: [www.pu.basf.de](http://www.pu.basf.de), [www.thebiomproject.com](http://www.thebiomproject.com)



go! science

## Sole test.

The Technical University of Chemnitz and BASF Polyurethanes have investigated the effect of midsole materials in sports shoes on running behavior. And they have discovered that PU is more durable and retains its damping characteristics for longer than other, conventional materials used in sports shoes today. With polyurethane it is also possible to counter the inward turning of the foot. This has been confirmed in a running test over 600 kilometers.

The first results of the study were presented at the conference of the **International Sports Engineering Association (ISEA)** in Vienna from **12 to 16 July 2010**.



# An instinct for the market.

With astuteness, intelligence and an unerring instinct for the needs of the safety shoe market, Jean-Paul Roux and David Bocquet have built up business for polyester-based PU systems in France.



Jean-Paul Roux

David Bocquet

Jean-Paul Roux is the Europe-wide head of this segment and responsible for safety shoes in BASF's global footwear team. At BASF since 2006, David Bocquet has over 18 years of experience of development and technical customer support in the shoe sector. Together, the two professionals have put business in France on a successful and sound basis

for the future. But it hasn't been easy, as the shoe market in France hasn't been immune to global developments. At the same time, France has always pioneered the manufacture of safety shoes with PU soles. Today there are seven big-name producers that use PU soles – all of them BASF customers. These trust in technical expertise provided locally and in the

huge commitment of people like Jean-Paul and David. And thus vindicate the strategy of BASF that has defined the shoe sector as a "core business", is constantly developing new systems and formulations for and with its customers.

Contact: [jeanpaul.roux@basf.com](mailto:jeanpaul.roux@basf.com),  
[david.bocquet@basf.com](mailto:david.bocquet@basf.com)



Dr Johann Diedrich Brand awarding the prizes: 1st prize men's shoes: Marisa Rampin, 1st prize women's shoes: Stefano Gentile

**The Footwear Design Contest 2010 in Padua once again demonstrated that polyurethane is the material of the future for shoes.**

The prizes for the Footwear Design Contest 2010 were awarded on June 25, 2010.

## PU makes it possible.

The winners were Marisa Rampin in the men's shoe category and Stefano Gentile for women's shoes. 50 students took part in this challenging competition this year. After a technical briefing by the PU Footwear Team from BASF Poliuretani Italia, the students got down to designing the men's and women's shoe fashions of tomorrow. The two best designs were selected by a jury composed of experts from BASF PU and the Politecnico Calzaturiero in Padua.

The themes were the natural landscape and Kandinsky's abstract art. In the realization of the sole, TPU and a newly developed PU foam were joined by the novel RPU technology from Stemma SRL which makes it possible to develop extremely complex sole profiles without air inclusions. As a result, very special surface effects are now possible. Furthermore, the process has a very green profile, as it eliminates the need for silicone

release agents and downstream cleaning.

You can now order the current catalogue of the best designs from [nicoletta.fissore@basf.com](mailto:nicoletta.fissore@basf.com),  
[info@politecnicocalzaturiero.it](mailto:info@politecnicocalzaturiero.it)

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**Publisher:** BASF Poliuretani Italia Spa  
Strada per Poirino 38  
14019 Villanova d'Asti (AT)  
P.I. 00514540012  
[johann-diedrich.brand@basf.com](mailto:johann-diedrich.brand@basf.com)  
[www.pu.basf.eu](http://www.pu.basf.eu)

**Editorial staff:** Dr Sylvia Kaufmann, Dr Johann Diedrich Brand, Dr Nicoletta Fissore

**Concept, Text, Design:** Alder Koenig, Hamburg, Germany

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