# Press release



International Ad & Sign Technology & Equipment Exhibition, Shanghai, hall W3, booth no. 009

### Changing the world with PLEXIGLAS®

- A special material with great potential
- Innovative products and applications displayed at International Ad & Sign Technology & Equipment Exhibition in Shanghai
- New brand mark stands for infinite design options

The responsible officers at the Acrylic Polymers Business Line of Evonik have a very clear idea of the future: "People who want to change the world should know about PLEXIGLAS<sup>®</sup>." At this year's International Ad & Sign Technology & Equipment Exhibition in Shanghai, the manufacturer of this special material offers insight into the developments, products and applications of today and tomorrow.

PLEXIGLAS<sup>®</sup> is one of the world's best-known brands of plastic and has become the very embodiment of acrylic (polymethyl methacrylate, or PMMA for short). This material stands out from other plastics due to its extremely long service life, its specific properties such as high resistance to UV light and weathering, high light transmission and nearly unlimited coloring options. Added to this, PLEXIGLAS<sup>®</sup> shows a great surface hardness. It can be fabricated by means of all thermoforming methods, and therefore offers huge creative scope. Another major benefit is that PLEXIGLAS is 100% recyclable, which makes an essential contribution to saving resources.

"Many people think every transparent plastic is PLEXIGLAS<sup>®</sup>. But that is not the case. PLEXIGLAS<sup>®</sup> is a brand with very special, and indeed unique, properties, which was invented in Darmstadt in 1933 by Dr. Otto Röhm," stresses Gregor Hetzke, President of the Performance Polymers Business Unit.

Right from the start, PLEXIGLAS<sup>®</sup> has led the way when it comes to innovations and tapping into new fields of application. It set new standards with the first plastic covers for automotive taillights, enabled the innovative design of items such as "Snow White's coffin" (the popular name for the cover of a Braun record player) and made air traffic more economical and safer by replacing glass in aircraft cabin windows. This plastic material set architectural standards during the construction of the July 6, 2011

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Olympic Stadium in Munich. PLEXIGLAS<sup>®</sup> provides greater safety at a height of 270 m on the world's longest cable-stayed bridge, measuring 2,460 m (Millau/France). It offers better quality of life in the form of highly effective noise control barriers in Hong Kong ("PLEXIGLAS<sup>®</sup> City"). "Our pioneering role in the past and present strengthens our confidence that we will continue to hold this pole position in the future too. Whenever something new made of PMMA sees the light of day, you can sure that we are behind it, with PLEXIGLAS<sup>®</sup>," explains Michael Träxler, Senior Vice President of the Acrylic Polymers Business Line.

Plastic is undeniably the material of the 21st century, and PLEXIGLAS® offers very special properties to meet the demands and challenges of tomorrow. PLEXIGLAS® combines infinite design options and nearly myriad different functions with responsibility for the world we live in, through its sustainability and longevity. PLEXIGLAS® is a material that constantly reinvents itself. For the world is changing and calls for new solutions.

PLEXIGLAS® holds enormous potential in this context. One example is modern communications, which would not be possible at all without this material. Display screens, light guide plates and the surface of touch screens for cell phones, MP3 players and navigation systems are made from PLEXIGLAS®, as are light guides for flat-screen monitors in all sizes. Nor could large, ultra-slim TV sets with LED edge lighting be made without the use of PMMA.

PLEXIGLAS LED (EndLighten T) is the new transparent material from Evonik that was launched on a global scale some six months ago. It is specially designed for transparent edge-lit applications using LEDs. This material, which is a further development of the previous slightly cloudy product (EndLighten) emits much brighter light towards the viewer. The new PLEXIGLAS<sup>®</sup> LED is especially suited for transparent applications in furniture, store fixtures, exhibition booths and lighting design.

PLEXIGLAS<sup>®</sup> is generally very much in demand as an interior design material. Luminous walls and glowing objects are set to replace classical lamps. They will draw just as much attention as PLEXIGLAS<sup>®</sup> Textures in Radiant grade, which is also being presented at EuroShop. This new combination of a textured surface with a rainbow effect diffuses light in an interesting way and catches the eye through its shifting colors that change according to the viewing angle. PLEXIGLAS<sup>®</sup> Textures with the

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Radiant effect is particularly suitable for applications that are meant to steal the show, for example in store fixtures and exhibition booths, but also for interior design in bars, clubs or lounges. Lighting elements made from the new material in ceilings, floors and lamps are equally eye-catching.

Next to consumer electronics, lighting and interior design, the automotive sector is another important field of application for PLEXIGLAS<sup>®</sup>. Lightweight construction is an aspect that is important for cars with conventional drives, but weight is even more crucial for the growing electromobility market. Lower weight saves fuel and is kinder to the environment. That is why metal and glass have increasingly been replaced with plastic in automotive construction. For more than 10 years, almost all well-known OEMs have been successfully using add-on automotive body parts with molded-in color made of PLEXIGLAS<sup>®</sup>. The benefits are obvious. In addition to weight savings, there is no need for subsequent coating, and the components have a durably stylish appearance due to their high surface gloss and depth of color.

Automotive glazing made of PLEXIGLAS® offers potential weight savings of 40 to 50% as compared with glass. As well its high transparency, the material offers the convincing freedom of design that can have a crucial influence on model development. In order to cover the entire range of glazing for automotive construction, Evonik is pursuing two lines of development: monolithic and multilayer systems based on PLEXIGLAS®. In practice, the PLEXIGLAS® glazing is currently being tested on the race track in a Lotus race car. This was recently equipped with a windscreen made from the highly transparent, weather-resistant and lightweight material, and passed its first race with flying colors. A Chinese OEM has already installed a PLEXIGLAS® windscreen in its mass-produced vehicles.

### New brand presentation for PLEXIGLAS®

To give this special plastic an even sharper profile, Evonik has launched its new brand presentation for PLEXIGLAS® in March. In so doing, the manufacturer of this material is sending a clear signal that PLEXIGLAS® is the plastic that helps shape the future. With its openness and dynamism, the "Swing" symbol in the new brand mark represents the nearly infinite possibilities offered by PLEXIGLAS®. The color chosen for the new brand presentation, Evonik Deep Purple, represents creativity. In addition to the modified presentation, the PLEXIGLAS® brand family has been regrouped





around its top products and services. The long-term aim is to give customers much easier and quicker access to the entire product range.

Evonik is one of the biggest PMMA manufacturers and a global leader in the PMMA market with its PLEXIGLAS<sup>®</sup> molding compounds and sheet products. The PLEXIGLAS<sup>®</sup> specialist continues to lead the field when it comes to innovations and tapping into new applications.

Evonik Industries is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

### About Evonik

Evonik is the creative industrial group from Germany. In our core business of specialty chemicals, we are a global leader. In addition, it has energy and residential real estate operations. Our performance is shaped by creativity, specialization, reliability and continuous self-renewal. Evonik is active in over 100 countries around the world. In fiscal 2010 more than 34,000 employees generated sales of around €13.3 billion and an operating profit (EBIDA) of about €2.4 billion.

Evonik Industries has been producing specialty chemical products in China since the early 1990's; with wide-ranging trading relations already in place prior to this. The Group now has a total of 18 companies and 15 production sites in the region. Evonik regards China as one of the driving forces of the global economy, and we consequently intend to increase our business in Greater China.

#### Disclaimer

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