

Fakuma 2021, hall B5, booth B5-5401

For appealing design and smart functions: PLEXIGLAS® molding compounds enhance the design of household appliances

- **Brand PMMA from Röhm is a proven material used for surface refinement, displays and luminaire design**
- **Special molding compounds in neutral-gray dyes create a black-panel effect that can be used for seamless designs for hidden displays**
- **PLEXIGLAS® supports high-quality and sustainable product design**

Household appliances are far more than useful aids that simply complete their tasks in the background. The expectations for functions and aesthetics are constantly increasing, while the trend toward open kitchens is ensuring a growing demand for representative equipment with cutting-edge devices that also look good. Coffee machines, refrigerators and ovens, vacuum robots and dishwashers are all becoming “smart” thanks to digital functions, while complex designs that use high-quality materials mean these devices are also more appealing to look at. PLEXIGLAS® molding compounds can contribute here in many different ways. Between October 12 and 16, the Molding Compounds business unit will present the wide range of brand polymethyl methacrylate (PMMA) products from Röhm for household applications at the Fakuma 2021 trade fair in Friedrichshafen, in hall B5, booth B5-5401.

“Our PLEXIGLAS® molding compounds enhance all types of household appliances,” says Christian Bitsch, Technical Marketing Manager, Lighting, Extrusion Optics in the Molding Compounds business unit at Röhm GmbH. “Manufacturers can enhance their devices with high-gloss surfaces, or illuminated areas and edges, include illuminated control elements or displays with a black-panel effect that are seamlessly and invisibly integrated into the device housing.”

PLEXIGLAS® molding compounds provide inspiration for effective light design

Thanks to advanced LED technology, light is gaining importance as a functional element and a design factor for emotional designs. The appliances use light signals to communicate with their users, as can be seen on a coffee machine, with a flashing symbol informing the user that it is currently making a large latte macchiato, or the washing machine that shows its progress in a similar manner.

PLEXIGLAS® molding compounds are a proven material for illumination applications as they possess unique transparency and light-guiding properties. It can be used to make illuminated buttons and keys, or backlight symbols, logos or decorative areas in color. Combining mechanical and optical functions in one component reduces costs and provides added value to the design.

Röhm’s brand PMMA comes in different versions which are suitable for edge lighting and back lighting with LEDs. Light-scattering variants are also available. These products create a pleasant, homogeneous light without any undesired differences in brightness, known as light hot spots. No additional scattering films or microstructures need to be applied to components made from this special molding compound to ensure even light extraction over the entire surface.

Darmstadt, October 12, 2021

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PLEXIGLAS® makes it possible to create displays with a black-panel effect

Digitally connected, smart household appliances that can be controlled by an app require displays and sensor covers. Larger, color displays are also in demand, for example on white goods. Crystal clear PLEXIGLAS® molding compounds are ideal for this, as they provide maximum transparency for vibrant display covers that show the information clearly and without any distortion.

Röhm has also developed PLEXIGLAS® molding compounds in neutral-gray colors specifically for displays with black-panel effect, as is common on smartphones. These enable displays – even those with a touch screen – to be hidden behind high-gloss black covers. Only when the device is on does the component turn into a colorfast display. This product meets the ongoing trend towards dark covers and seamless design in household appliances, particularly since white appliances are no longer just white.

Visitors to the trade fair are invited to see the black-panel effect for themselves at Röhm's booth. The secret-until-lit box at the booth helps visitors select the PLEXIGLAS® variant suitable for their application. It contains samples with various gray dyes and wall thicknesses.

PLEXIGLAS® molding compounds enhance surfaces

The Molding Compounds business unit trade fair team will also show how manufacturers of household appliances can use PLEXIGLAS® molding compounds to enhance the surfaces of their products. There are various different PLEXIGLAS® variants with different surface qualities, depending on the desired appearance and feel, for example, high-gloss or velvety matte. As the molding compounds are also ideal for co-extrusion, a crystal clear top layer of PLEXIGLAS® can be placed on top of other materials to create a fascinating 3D effect with a sense of depth. Because the brand PMMA is initially completely colorless, it can be dyed in any color to manufacture colored housings.

PLEXIGLAS® supports sustainable product design

PLEXIGLAS® housings are not only appealing from an aesthetic standpoint, but are also robust. Furthermore, the material is also easy to maintain, resists many cleaning agents and does not discolor upon contact with food. After all, household appliances should work for a long time, and look good equally as long. "PLEXIGLAS® is sustainable by design," emphasizes Siamak Djafarian, Head of the Molding Compounds business unit at Röhm GmbH, going on to explain: "Our PLEXIGLAS® contributes to sustainable product design as it is a very durable plastic that retains its high-quality appearance without yellowing or becoming brittle. It therefore meets the highest demands placed on the brand quality of household appliances." When reliable technology, beautiful design and high-quality materials, such as PLEXIGLAS® are combined, a household appliance has what it takes to become a classic design piece.

[Pictures]



PLEXIGLAS® molding compounds enhance all types of household appliances.



PLEXIGLAS® molding compounds: a proven material used for surface refinement, displays and luminaire design.

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With 3,500 employees and 15 production sites worldwide, Röhm is one of the leading manufacturers in the methacrylate business. The medium-sized company with branches in Germany, China, the USA, Russia, and South Africa has more than 80 years of experience in methacrylate chemistry and a strong technology platform. Our best-known brands include PLEXIGLAS®, ACRYLITE®, MERACRYL™, DEGALAN®, DEGAROUTE® and CYROLITE®.

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More information is available at www.roehm.com.