PRESS RELEASE

TRADITIONALLY INNOVATIVE

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Industrial lighting

ACRYLITE® molding compounds guarantee maximum light efficiency for Zumtobel's robust, moisture-proof AMPHIBIA PM luminaire

- **Luminaire with IP66 safety class meets highest requirements for industrial lighting**
- **Housing and diffuser made from impact-resistant ACRYLITE® Resist zk5BR special molding compound**
- **Brand PMMA from Röhm impresses with impact resistance, high transparency and good chemical resistance**

Dust swirls through the air, water splashes, cleaning agents are sprayed – luminaires in industrial buildings have to cope with a lot of adverse conditions. They are often exposed to dirt, humidity, extreme temperatures or even chemicals. The materials have to withstand all these impacts, as well as being break and shock-proof. Workplaces are also subject to complex requirements for light quality and illumination.

Zumtobel, a leading international provider of lighting solutions for commercial properties, developed its robust AMPHIBIA moisture-proof luminaire for an extremely wide range of industrial applications. The long LED diffuser luminaire lights up factories, logistics centers, agricultural buildings, parking garages and much more. It is available in three versions, adapted to different areas of use. Zumtobel produces one of these, the AMPHIBIA PM, from ACRYLITE® molding compounds, the brand polymethyl methacrylate (PMMA) from Röhm in the Americas. "Our material meets the high standards needed for industrial lighting and also offers outstanding lighting properties," says Andrea Fruth, Senior Product Manager Lighting, Extrusion, Optics in the Molding Compounds business unit of Röhm GmbH.

The same material for diffuser and housing

Both the housing and the diffuser of the AMPHIBIA PM are made from the ACRYLITE® Resist zk5BR special molding compound. It is where the versatility of the highly transparent, impact-resistant material, which can also be equipped with diffuser particles for an opalescent look, really comes into its own. "Our one-material concept for the housing and diffuser was unique when AMPHIBIA was launched. It ensures optimum resistance throughout the luminaire's entire lifespan," explains Thibaut Escourrou, Global Product Manager at Zumtobel. The advantage of using the same material for the entire product is that everything has the same thermal expansion properties. This ensures that the luminaire remains watertight, even when exposed to significant fluctuations in temperature.

But its versatility is just one of the reasons why Zumtobel chose ACRYLITE®. "We value ACRYLITE® Resist zk5BR for its very high transparency," says Escourrou. "PMMA's high UV resistance is also an advantage for luminaires used outdoors and in covered outdoor areas, such as in agricultural settings." This is because the material's integral UV protection allows ACRYLITE® to retain its optical properties permanently, without weather conditions causing it to become yellow or brittle.

Extraordinary transparency and high surface reproduction accuracy

Zumtobel's experts have developed a range of light scenarios for the AMPHIBIA series, tailored to various room dimensions and ceiling heights. For example, the luminaire can be equipped with very narrow beam angle optics for illuminating high-shelf logistics centers.

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ACRYLITE® Resist zk5BR is extraordinarily transparent and combined with its high surface reproduction accuracy in injection molding, the special molding compound is ideal for high-precision optical components like this. In the AMPHIBIA luminaires, linear microstructures at the bottom of the transparent cover guide the light to cover a deep or wide area, exactly as needed.

“PMMA is the only real choice of material when it comes to lighting technology. It allows us to achieve maximum light yield and efficiency,” agrees Wolfgang Bechter, Global Project Manager at Zumtobel. “AMPHIBIA is designed for a lighting duration of 100,000 hours, so we place great importance on selecting the best material for a long lifespan. From this point of view, too, ACRYLITE® molding compounds from Röhm meet Zumtobel’s quality standards.”

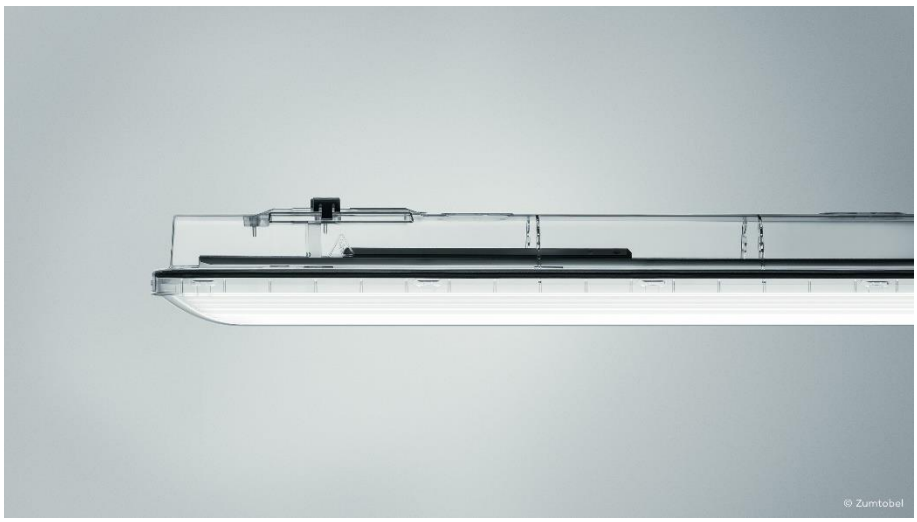
Resistant to cleaning agents

The lifespan of industrial lighting depends not only on the material’s resistance, but also on the product being able to withstand dirt and moisture and easy to clean. Designer Stefan Ambrosius and his development team therefore designed AMPHIBIA’s geometry in such a way that as little dirt as possible adheres to it while water simply runs off the smooth surfaces and rounded edges. With its extremely robust housing, which keeps out all dust and water, AMPHIBIA meets the requirements for the IP66 safety class and can withstand even the water jet from a pressure cleaner.

The fact that the entire luminaire is made from transparent components also has a very practical reason when it comes to cleaning: “You can see from below whether dirt has collected on the top of the light and needs to be cleaned. That was one of the customer’s hygiene requirements,” explains Escourrou. “The PMMA variant offers outstanding resistance against a large number of chemicals that are commonly used in food processing plants, including cleaning agents.” With its resistance to ammonia, AMPHIBIA PM meets the international standards for the food industry and the standards of the German Agricultural Society for lighting in stables. With a temperature tolerance of -10°C to +35°C, it is also suitable for many other fields of use.

[Fotos]

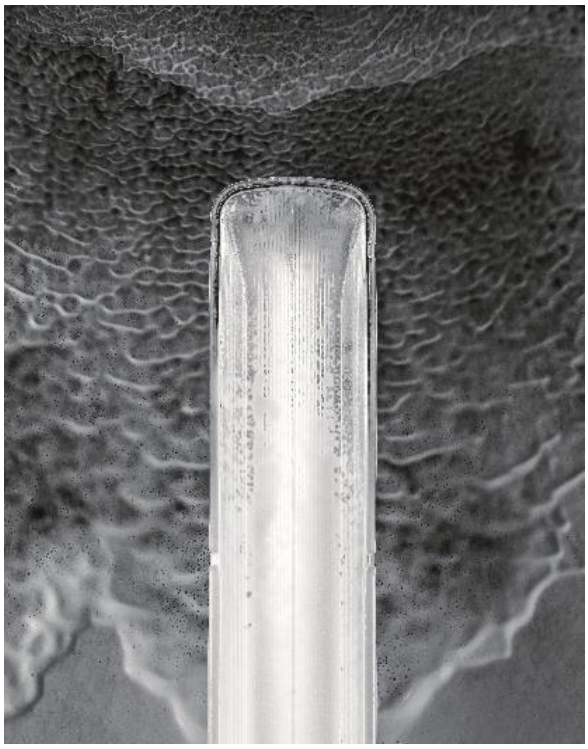
The AMPHIBIA moisture-proof luminaire from Zumtobel is extraordinarily robust and resistant to water, dust and chemicals. The AMPHIBIA PM version is made using the ACRYLITE® Resist zk5BR special molding compound.



Material for premium quality optical components: ACRYLITE® Resist zk5BR displays maximum transparency and brilliance.

Zumtobel's one-material concept: Both the housing and the diffuser of the AMPHIBIA PM are made from ACRYLITE® Resist zk5BR. The highly transparent material is impact resistant and can be equipped with diffuser particles if desired to create an opalescent version.

Self-cleaning effect: Smooth surfaces and the geometry of the AMPHIBIA allow water to run off quickly without impairing the optics.



The ACRYLITE® housing is waterproof and resistant to many chemicals and cleaning agents.

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About Röhm
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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