News Release



New Ultramid® product for window systems

- Development of zamak replacement in cooperation with BASF partner STAC
- Transmission cover with a new design and enhanced product properties

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With the new Ultramid® LFX, it is now possible to configure window systems even more effectively. Reinforced with long glass fibers, the polyamide delivers significant benefits over conventional materials like metals and scores highly with outstanding strength and good insulation properties. The component also enables intelligent window design.

Good insulation starts with the details

For a new building to be modern and energy-efficient, it needs more than just large-area facade insulation. No less important are intelligently conceived window systems — whose development sometimes involves moving in new directions and rethinking or replacing conventional materials. Now, in cooperation with hardware and accessories manufacturer STAC, Padrón, Spain, BASF has replaced an existing component made of zamak with a long glass fiber reinforced Ultramid® and thus significantly improved the system. By using long glass fibers, it has created a superior performance profile not only featuring outstanding mechanics, but also appreciably upgrading the window's overall insulation performance and



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contributing to sustainable construction. Development proceeded hand in glove: The new design of the component integrated in the window profile was proposed by the customer STAC. BASF precisely calculated and optimized this design with its Ultrasim® simulation technology. Next, a prototype tool was created for producing the newly developed component. Using long glass fibers was a crucial factor and yielded the desired results. Joaquim Pérez Vidal, Key Account Manager Sales Western Europe, at BASF sums up the outstanding achievement: "The application fully exploits the attributes of Ultramid® LFX: excellent stability at all application temperatures, high toughness and fatigue strength, and good thermal separation."

Constructing Tomorrow: Small component – astonishing effect

Being able to replace metal in the window frame is a real advantage. "The smooth and silent performance of the new part is highly satisfactory. Thermal weak points in window design can thus be reduced further, and this has a noticeable effect on interior comfort," explains Javier Fernández Cobián, Technical Director at STAC. Ultramid® satisfies high mechanical requirements while being corrosion-free and extra-light. Thanks to its outstanding, smooth surface quality, the window is easier to open and close. And this is achieved without an additional coating. This also benefits the plastic component's environmental profile, as it does without further post-treatments such as corrosion protection and is particularly efficient in the production process. In addition, it is lighter than conventional products and consequently reduces the energy consumed during transport. For the window design of the future, there are still plenty of opportunities for energy efficiency and sustainability.

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