USER REPORT

WITTMANN BATTENFELD and SANIT
Designer frame with high-quality surface – joint project of Sanit and WITTMANN BATTENFELD a complete success

At the ISH in Frankfurt, Sanit, based in Eisenberg / Thuringia, Germany presented for the first time its latest new product, a designer frame with a high-quality surface. The designer frame is part of the flush panel assembly for the WC flushing system. It is to be offered to customers as an alternative to expensive glass panels. The frame is produced by a variothermic process, with the integration of BFMOLD™ technology in the mold.

While searching for new possibilities in production, WITTMANN BATTENFELD and Sanit got together in spring 2010. A flat component with apertures was to be injection-molded with a high degree of parallelism and a high-gloss surface. In a project meeting with Sanit staff, WITTMANN BATTENFELD introduced the possibility of manufacturing repeatable parts, avoiding surface defects such as blushing and eliminating joint lines on the surface, by integrating BFMOLD™ technology in the mold and supporting the variothermic process with a Tempro plus C 2/160 VARIO temperature controller from WITTMANN.

Injection molding applications using variothermic processes in injection molding were already known. But this combination was a step towards breaking new ground. Both Sanit and WITTMANN BATTENFELD were convinced that they could successfully implement the project. The Plastics Institute in Lüdenscheid / Germany (KIMW) had just recently developed BFMOLD™ technology. In the planning phase, samples were produced with a test mold which confirmed the positive assessment of all parties involved.
Convinced of the effectiveness of this process, WITT Manny BATTENFELD presented this application to its visitors with the mold produced by KIMW at the Open House 2010 in Kottingbrunn last year and showed two more applications at the K 2010.

The first presentation of the designer frame from Sanit at the ISH in Frankfurt was staged at the Sanit booth by Klaus Ehlig, Managing Director of WITT Manny BATTENFELD in Meinerzhagen / Germany and Raimund Au, Managing Director of Sanit. “Visitors to the fair have shown great interest in this new product, and here the decision to break new ground in process technology was right”, Raimund Au summed up. In addition to numerous enquiries, first orders were also placed at the fair. Ehlig was surprised about the application in black, since this color shows up any surface blemish on visible parts particularly clearly. Au admitted that this color had actually not been included in the Sanit range before. But the first samples in black had met with such an enthusiastic response that it was no longer possible to say NO to this variant.

Fully satisfied with the result of the first project, Sanit is now planning to offer additional models produced with the variothermal process and integrated BFMOLD™ technology.
The WITTMANN group has acquired exclusive global utilization and marketing rights for the BFMOLD™ temperature control technology in injection molding tools developed by KIMW in Lüdenscheid and is continuing to develop this technology with new applications.

The BFMOLD process for dynamic tempering is not based on conventional tempering channels. Instead, a ball filling takes care of the mechanical support in a hollow structure placed extremely close to the cavity. Accordingly, the abbreviation BF stands for ball-filled. In this way, tempering media can be brought very close to the mold cavity and be evenly distributed below its entire surface, which means that the whole area below the cavity is available for heating or cooling. Here, the ball filling favors fast and efficient throughflow of the tempering medium. Temperature control in this process is effected by the Tempro plus C 2/160 VARIO multi-zone temperature controller specially developed for this purpose.

In heating with BFMOLD™ technology, the downtimes are used for heating up, so that cycles are normally not lengthened by this process. It also enables high cooling speeds. With large, flat tempering spaces, a homogeneous cavity wall temperature
can be generated and thus an extremely fine surface texture. Sink marks are prevented and joint lines and warpage minimized through an extended holding pressure phase. The process window of parameter settings is wider, and process optimization is feasible more quickly. In this way, the newly developed technology yields a significant improvement in surface quality with relatively low additional costs for tooling.

Sanitärtechnik Eisenberg GmbH

SANIT develops and manufactures technically advanced sanitary products from plastics in Eisenberg. The company belongs to the Aliaxis group (Belgium, France). This industrial group of companies is a globally leading supplier of plastic materials for building construction. It is present in 39 countries with 90 companies. Under the roof of this strong partner, SANIT has developed into a respected company of the international sanitary industry.

WITTMANN BATTENFELD

WITTMANN BATTENFELD, based in Kottingbrunn, Austria is a leading manufacturer of injection molding machines for the plastics industry. With its own sales and service companies as well as representations in about 60 countries, WITTMANN BATTENFELD provides optimal support to its customers in all matters concerning injection molding technology. Its innovative strength, highest precision and strong focus on maximum customer benefit make WITTMANN BATTENFELD a valuable partner for its customers.
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