

## Collaboration between Sonderhoff and Engel provides efficient Mold'n Seal process

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At the triennial Engel Symposium 2012 held from June 13-14, Sonderhoff Group partners with Engel to present Mold'n Seal, an integrated process solution that combines injection molding and foam gasketing to improve efficiency and product quality.

On an Engel "victory 1350/300 tech series" hydraulic injection molding machine, visitors were able to see how housings for moisture-proof luminaires from Zumtobel Lighting were injected and then provided with a Sonderhoff polyurethane sealing bead immediately thereafter. Short curing times of two to three minutes for the gasketing material from Sonderhoff Chemicals that is used enable faster further processing of the components and thus greater time savings for the entire manufacturing cycle.



Sonderhoff says Mold'n Seal requires very small footprint while enhancing productivity and product quality

In addition, Sonderhoff says Mold'n Seal also saves costs and space. Investment and personnel costs can be reduced because of the high level of integration. Instead of the two robots previously required, only one robot is required now for the parts handling of both procedures injection molding and foam gasketing. It results in a reduced space requirement of just 24sqm.

In the injection molding process, the application of foam gaskets is determined by the injection molding cycle, the cycle time. Within 55s per injection molding cycle, in an eight hour shift, without interruption a total of 523 luminaire housings could be injection molded, removed from the mold, foamed, and placed on a discharge belt for curing and further processing.

According to Sonderhoff, the challenge in developing the Mold'n Seal procedure was formulating a gasket material with which the reaction of the two material components can be adapted to each specified injection molding cycle, and with which the sealed part can be quickly further processed after a short curing time for the applied gasket of two to three minutes.

For such purpose, Sonderhoff Chemicals GmbH developed new formulations for fast-reacting foam gasket systems, the so called Fast-Cure gaskets from the Fermapor K31 product line that enable in-line processing in the injection molding cycle. Due to the high reactivity of the gasket material, the Fast-Cure gaskets from Sonderhoff cure quickly, and thus the foamed injection molded parts can also be further processed more quickly. This results in significant time savings for the entire manufacturing

process, the company states.