

CoverForm[®]

Surface Functionality for the Highest Requirements



CoverForm® – Surface Functionality for the Highest Requirements

CoverForm® is a new surface technology from Evonik and KraussMaffei that satisfies the most stringent requirements. This innovative system solution makes it possible to directly apply a thin functional layer to PMMA moldings during the injection molding process itself, without any need for subsequent coating.

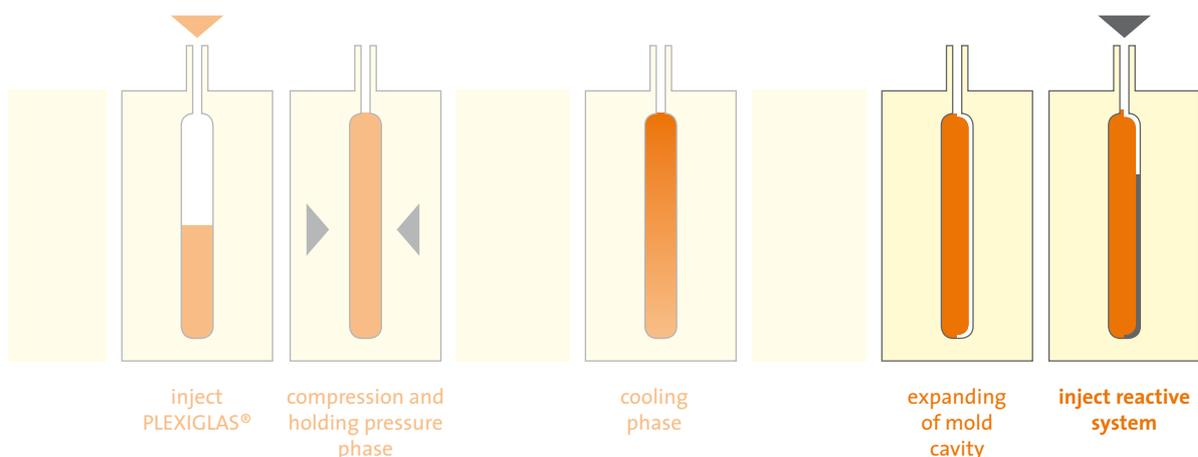
Scratch-resistant coating for hard-wearing components

CoverForm® can be used for example to equip a PMMA component with a hard-wearing surface, for example a scratch-resistant coating that simultaneously provides excellent chemical resistance for highly demanding applications.



Materials and properties

For this, the methacrylates specialists at Evonik have developed an innovative combination of materials. This consists of a special PLEXIGLAS® cf molding compound and a precisely adjusted, solvent-free multi-component reactive system on an acrylate base, which is characterized by its excellent adhesion to PMMA and gives the component surface outstanding resistance to scratches and a large number of aggressive chemicals.



injection molding process

reaction process

The machine and the process

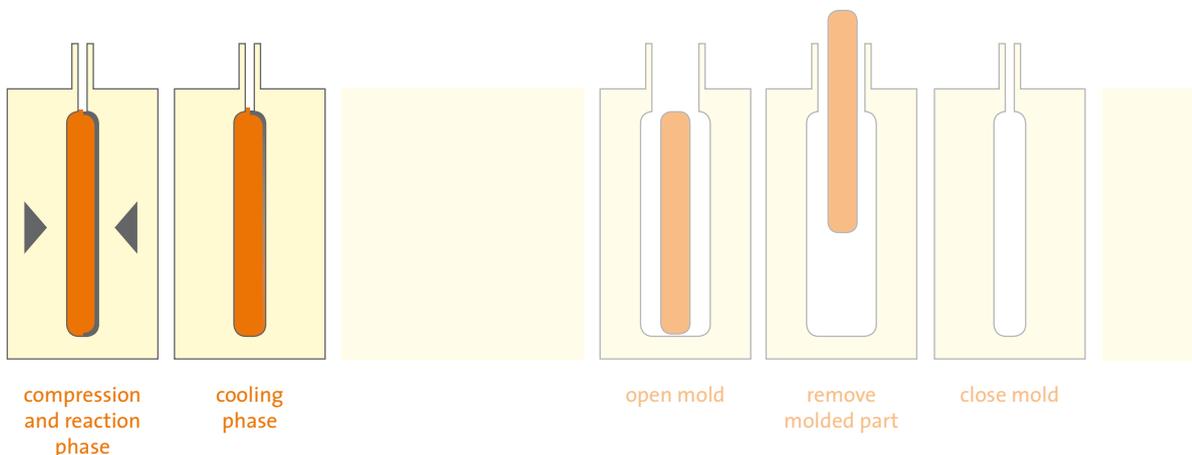
A small-quantity metering unit specially developed by KraussMaffei injects the liquid multi-component reactive system into the cavity of a CX injection molding machine. During the subsequent compression step, the coating is evenly distributed on the surface of the molding, providing cover layers less than 50 µm thick. The machines of the CX series are suitable for clean rooms, and appropriate clean-room equipment makes sure that the production room remains dust-free, excluding any risk of contamination for the components. Since the coating partially cures in the mold, the component can be easily demolded. After the part is removed, the scratch-resistant coating is completely cured by means of UV radiation.

Technical Support

At the CoverForm® Competence Center, potential users can experience the CoverForm® system solution for themselves and convince themselves of its benefits. Evonik and KraussMaffei specialists at the Center show the possibilities offered by this new injection molding technology.

The benefits of CoverForm®

The new CoverForm® system solution dramatically cuts the cost of producing scratch-resistant-coated plastics components because there is no need for subsequent coating. The CoverForm® technology points the way to the future, both in terms of economy and performance.



reaction process

injection molding process



The CoverForm® system solution is exclusively available via the Evonik/KraussMaffei partnership.

You can find more information at

www.coverform.de

Email: info@coverform.com

® = registered trademark

CoverForm comprises registered trademarks of Evonik Röhm GmbH, Darmstadt and of KraussMaffei AG, Munich.

PLEXIGLAS is a registered trademark of Evonik Röhm GmbH, Darmstadt.

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, also with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.