FORM PARTS
FOR THE AUTOMOTIVE INDUSTRY

No other industry demands such constant change and development as the automotive industry. Plastics are used in assemblies of the car body, chassis, engine and drive and, of course, in the vehicle interior. They are accompanied by high safety standards and a high degree of specification. The requirements for strength, stiffness, durability and haptics are constantly increasing and are always on the edge of possibilities. Innovations are in demand. The quality requirements for processes and products are very high, and at the same time economic and ecological factors must be taken into account. The automotive industry demands high delivery reliability and transparency of processes and project flows from suppliers.

For example, MÜHLBEYER GmbH supplies injection molds for automation lines with strip extrusion using reel-to-reel technology. In strip overmoulding, a punched strip is unwound from a reel into the injection mold. After the finishing process with plastic, the punched strip is wound onto empty reels (to reel) and can therefore be delivered to the customer. However, it is also possible to integrate upstream and downstream cutting and bending tools. In this way, assemblies for fuel injection systems, for example, are produced.

Particularly in the case of visible components, the highest quality demands are placed on suppliers in the automotive sector. In automotive interiors, surfaces must be visually and haptically convincing. MÜHLBEYER GmbH develops injection molds for such molded parts with visible surfaces. The injection molding tools can either be polished to a high gloss, for vapor deposition or electroplating, or have an eroding or etching structure as the basis for the subsequent painting. For example, tacho rings and decorative elements for the vehicle interior are produced.

MÜHLBEYER
Werkzeug- und Formenbau GmbH
Raiffeisenstr. 4
D-74177 Bad Friedrichshall
Tel. +49 7136 9460-10 Fax -19

sales@muehlbeyer.de
www.muehlbeyer.de

YOU THINK ABOUT SHAPES
AND COMPONENTS
WE ABOUT YOUR PROCESSES

In the assembly shown below, the basic housing was manufactured as a 2K molded part. The visible surfaces of the molded parts were produced with a fine eroding surface and painted after the injection process. Finally, the symbols were made visible with the aid of a laser.

Injection molding tools are also used in the manufacture of connector parts, sensor housings, male connectors and connectors in general. The molds for overmolding the contact elements can reach different expansion stages: From manual assembly by hand to integrated molding tools in automation lines. The metal inserts are therefore inserted manually or automatically into the tool. In order to ensure the correct positioning of the inserts in the series process, the coordination between tool and insert must be very precise. The insert is overmolded in the mold, achieving a firm bond between the insert and the molded part.

MÜHLBEYER GmbH can offer and implement various processes for the production of injection molds for the overmolding of inserts.

We analyze:
- the injection molding material (strength, temperature, media, tribology, material price)
- the injection-molded construction (draft angles, sink marks, ribbing, tolerance evaluation, cutting burr, position of the injection point, wall thicknesses, weld lines)
- tool technology (technology 1K, 2K, tool life, short cycle time)
- the injection process (technology 1K, 2K, specifications such as machine capabilities, process capability)
- the assembly processes

MÜHLBEYER
Werkzeug- und Formenbau GmbH
Raiffeisenstr. 4
D-74177 Bad Friedrichshall
Tel. +49 7136 9460-10 Fax -19
sales@muehlbeyer.de
www.muehlbeyer.de

YOU THINK ABOUT SHAPES
AND COMPONENTS
WE ABOUT YOUR PROCESSES