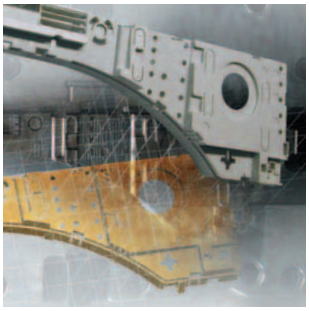
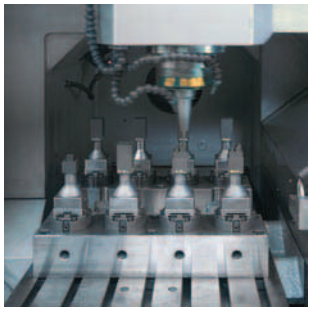
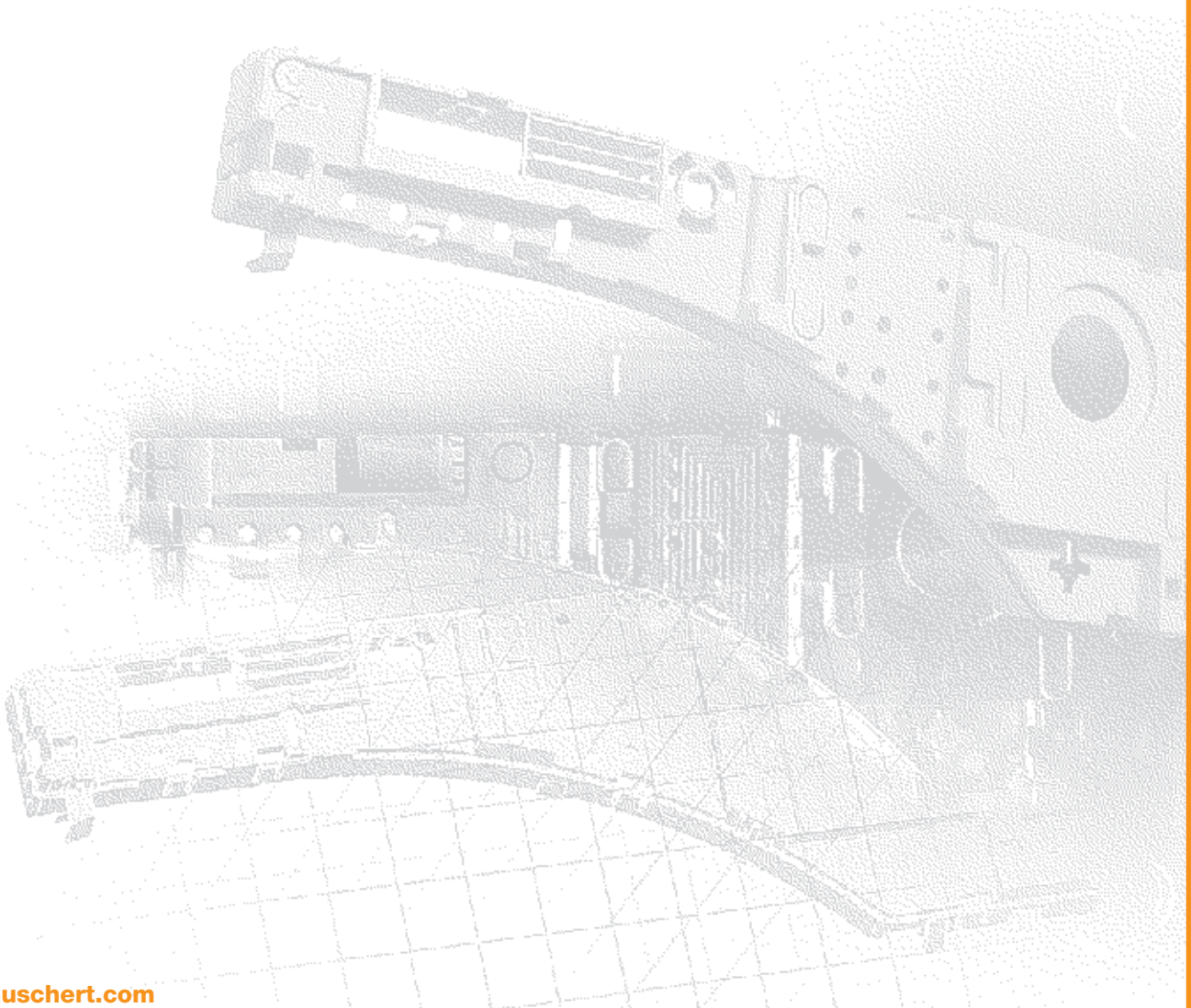
Rauschert
Technical Ceramics · Plastic Injection





# Rauschert plastic injection molded parts
## Know how for your success



www.rauschert.com

# Rauschert plastic injection molded parts
## Know how for your success

### Experience

Rauschert has been producing technical parts for more than 100 years. Originally, we started with technical ceramic parts. Since 1966, we have added plastic injection molded parts to our portfolio.

Today, we manufacture technical injection molded parts from all common thermoplastic resins.

Thanks to continuous investment in new production technologies and intensive training of our employees, Rauschert is one of the most progressive manufacturers of injection molded plastic parts in Germany.


# The Rauschert Story – more than 100 years of

**1898**

Paul Rauschert sen. founds a company for the production of electroceramics in Hüttengrund/Thuringia

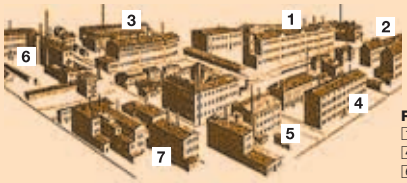
Further production sites are Pressig, Steinbach am Wald and Steinwiesen

**1923 - 1930**

**25 years of Rauschert**

Purchase of Silesian (now Poland) ceramics factories in Schmiedeberg, Erdmannsdorf and Haselbach

Paul Rauschert jun. heads a total of 2,200 employees




**Rauschert production sites in 1927**
1 Hüttengrund, 2 Pressig, 3 Steinwiesen, 4 Steinbach am Wald, 5 Schmiedeberg, 6 Zillertal-Erdmannsdorf, 7 Haselbach

**1931/32**

The Great Depression

Loss of the production sites Hüttengrund, Steinwiesen (1933), loss of the Silesian production sites (1945)

Number of employees left: 60

**1945 -1948**

Rebuilding after World War II initiated by Paul Rauschert jun., Egon Rauschert, Gottfried P. Rauschert, and Paul Ernst Metzler

150 employees at 2 production sites

**1950**

Opening of Oberbettingen plant



25

Our production sites Oberbettingen / Vulkaneifel, Steinbach / Oberfranken and Kunshan / China are supplying a diversified portfolio to international and medium-sized companies in a wide range of industries. In total, we employ about 300 qualified employees.

In addition to our qualified personnel, our quality management system, certified according to DIN EN 9001, will guarantee your satisfaction.

**If you like, we can take care of some work for you!**

Our service starts as early as the design phase. During the development of a new product, our engineers will assist you with their technical know how and experience. After the development phase, tools are designed using the latest CAD technology. During this phase, interfaces to customer systems such as iges, catia, unigraphics and pro engineer have proven successful.

We develop and manufacture precise injection molds in our state of the art tool shops, where we set extremely high standards for quality and durability.

Our 65 modern injection molding machines with clamping forces of up to 450 metric tons enable us to mold highly sophisticated parts. We are producing 1,200 different products per year that meet the highest quality requirements.

# experience

**Rauschert production sites in 1927**
From left to right:
Rainer Kober, director until 2005
Paul Ernst Metzler, director until 1993
Gottfried P. Rauschert, director until 1997
Dietrich Rauschert, director until 1990


**1965**
Reacquisiton of Steinwiesen factory

**1967**
Product diversification:
Plastic injection molding in Oberbettingen
Plastic molds for technical components
Packings for chemical processing industry

**1973**
**75-year anniversary of Rauschert**
600 employees at 4 production sites

**1982**
Opening of the US factory in Madisonville (TN)

**1990**
Start up of plastic injection molding in Steinbach a. Wald

**1995**
Manufacturing start of complex two-component injection molded plastic parts
Certified quality management system ISO 9001
Opening office in Baar / Switzerland
Opening of Rauschert s.r.o. in Horny Slavkov / Czech Republic

**1996**
Acquisition of Porzellanwerk Kloster Veilsdorf

**1997**
Reacquisition of Myslakovice ceramics factory (Erdmannsdorf, Poland)

**1998**
**100-year anniversary of Rauschert**
1,500 employees at 14 production sites

**2001 / 2002**
Application of PU foam gaskets in Oberbettingen
Rauschert reorganisation into independent divisions and transfer of the headquarters to Judenbach / Thuringia

**2005**
Start up of production site in Kunshan / China
1,500 employees at 17 production sites

75 100

# Injection molded parts
## Unifying complex functions

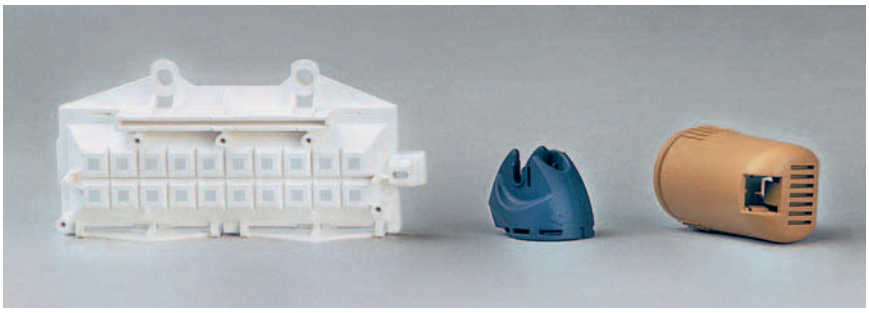
The injection molding process allows free design of parts to be molded. This means injection molded parts for the most diversified technical requirements can be manufactured very efficiently.

In addition to all standard thermoplastics, Rauschert processes a number of specialized high-tech resins that will meet maximum

- mechanical
- electrical
- thermal and
- environmental demands.

*Picture at top: multifunction valve block for vehicle air suspension control*

*Picture at bottom: instrument base used to set multi-axis measuring positions (laser alignment instrument)*



*Reflector for light-pipe systems indicating the selected functions (washing machines); housing for pulleys of bicycle transmissions; transmission holder for micro-drilling machines (from left to right)*

*Push buttons with metallic effect, made of a special ABS (alternative for expensive metallic varnishing)*

*7-segment digit display for appliances consisting of light-pipe element (PMMA) and housing (polycarbonate)*

*Packings for chemical processing industry, made of PVDF/PFA, used in wastewater and flue gas treatment*

# System components
## Combining the best of everything

System components consist of assembled or insertmolded precision plastic, rubber, ceramic and / or metal parts.

These parts are assembled semi or fully automatic with the help of

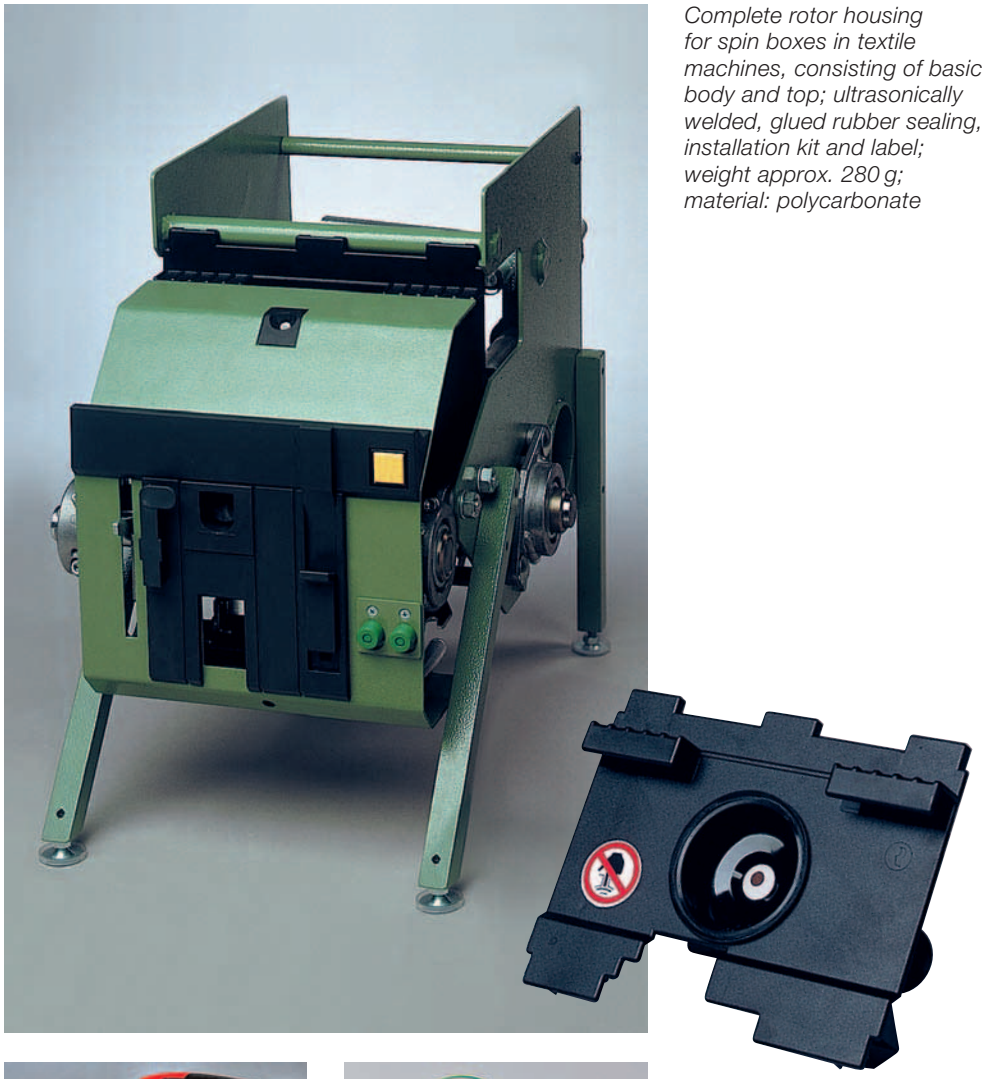
- insertmolding
- ultrasonic welding
- clipping or
- bolting

We also offer:

- pad printing
- application of PU foam gaskets

We are pleased to offer you our extensive knowledge in materials and design. Furthermore we advise you on the various possibilities of a technically and economically efficient part assembly.

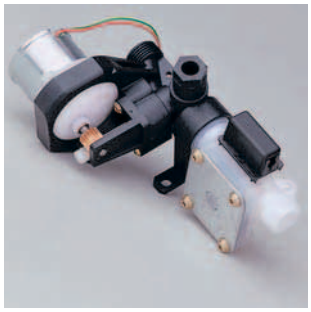
We can take the challenge!



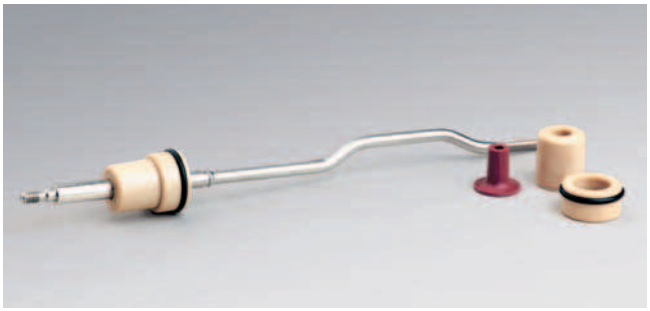
*Complete rotor housing for spin boxes in textile machines, consisting of basic body and top; ultrasonically welded, glued rubber sealing, installation kit and label; weight approx. 280 g; material: polycarbonate*

*Control housing made of nylon, with injected transparent polycarbonate window, for laser alignment instruments (weight approx. 150 g); minimum distortion thanks to glassfiber – glass ball filler mixture*

*Levers for electrical low-voltage switch gears and locking units with locks made of nylon and brass components (weight 50-500 g)*



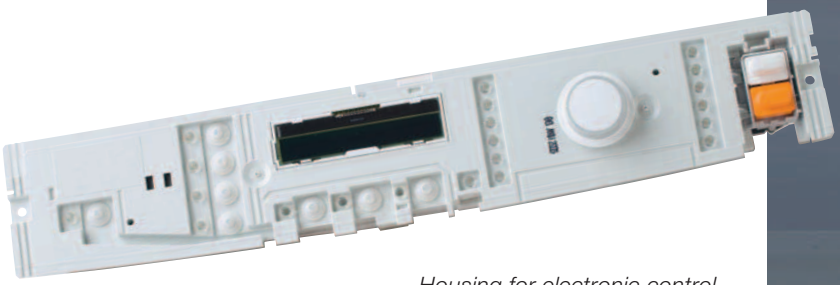
*Complete sensor unit monitoring and modulating volume flow in an electrical water heater; materials: nylon, PPO, PVDF, metal; assembled by clipping and bolting*



*Mixing valve for gas-fired burners in heating systems, consisting of a two-component base (nylon) with seal (TPE) assembled with exterior seal (viton) and swing flap (polyamide filled with 80 % copper)*

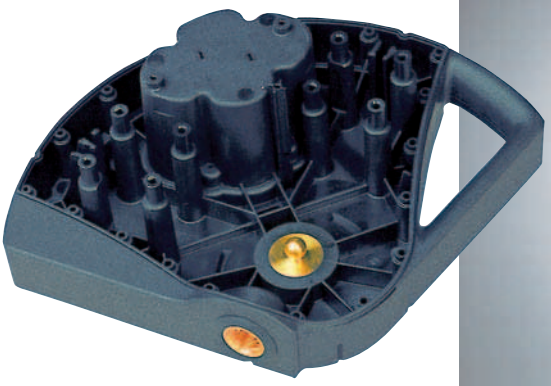
*Picture at top:*
*complete control rod for turbochargers in automobiles, consisting of a metal rod with assembled rubber sleeve and ultrasonically welded guide bushing; material: PPS*

*Picture below:*
*nozzles with automatically inserted and overmolded metal fabric for application in brake systems of utility vehicles; material: glassfiber-reinforced nylon 6*



*Housing for electronic control boards in washing machine, consisting of base and cover (flame-resistant polycarbonate) mounted with light pipes (PMMA) and buttons (two components: TPE and PE); weight approx. 160 g*

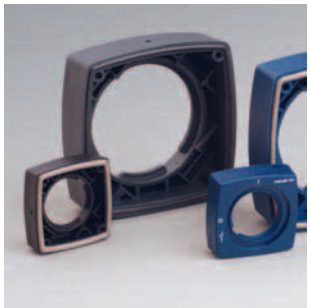
*Housing base with overmolded TPE seal and assembled metal insert for video surveillance camera. The picture shows the complete camera including the wall attachment; material: PBT*



*Complete rotor head for laser alignment instrument, consisting of base plate and housing (nylon) with 7 metal inserts and print; weight approx. 460 g*


*Coil body made of glassfiber-reinforced plastics (nylon) with overmolded CU contacts and steel yokes.*

*Touch buttons for automotive power lock system, consisting of base with PU foam gasket, assembled EPDM seal and a two-component touch button element (frame and button made of nylon, flexibly connected by TPE)*

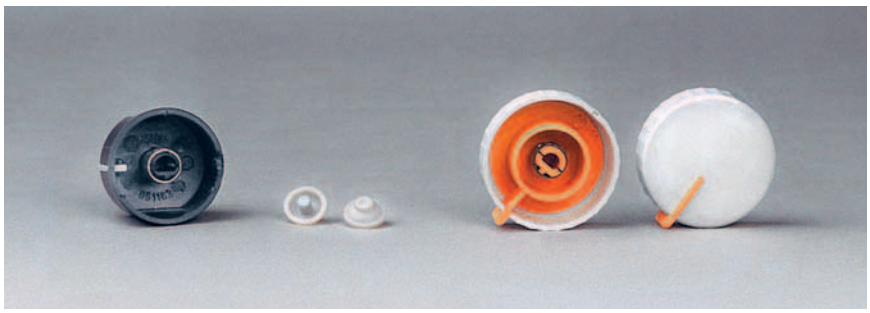


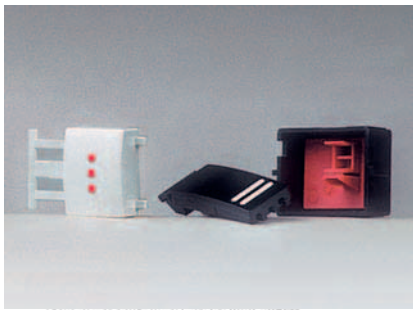
*Switch flanges for low voltage systems made of nylon with applied PU foam gasket*

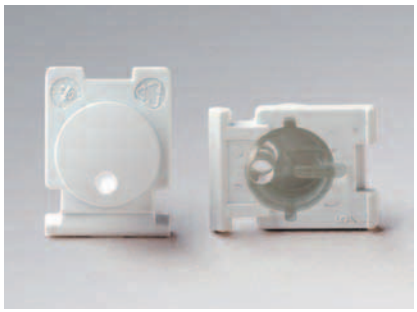
# Two-component plastic injection molded parts
## Optimizing design and function

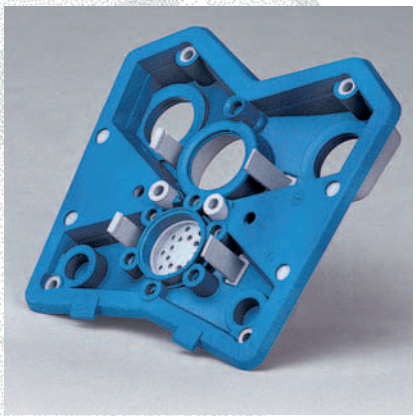
Two-component plastic parts meet high demands on optical and mechanical stability and functionality.

The two-component injection molding process is used to produce material combinations for parts weighing up to 300 g. Since this production process implies low unit prices but relatively high investment in tools, only high quantity manufacturing is economical.









*Examples:*

*Picture at top: rotary switches with markings for appliance industry; material: colored ABS/ABS, button tappets (replacing coil springs); material: PE/TPE*

*Picture at middle left: push buttons for operating panels, with colored symbols for appliances; material: colored ABS/ABS*

*Picture at middle right: push buttons with integrated light pipe; material: PMMA or polycarbonate/ABS*

*Picture at bottom: front panel for camera housing with a circular sealing element for video surveillance camera; material: PA/TPE*

# Composite parts
## Mastering extraordinary requirements

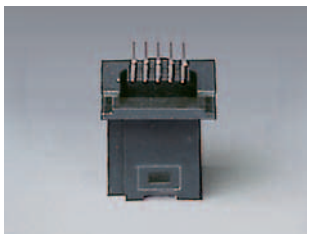
Composites are particularly suitable for special demands in the areas of wear, heat and insulation.

Composite components are normally manufactured by insert-molding metal or ceramic parts in semi- or fully automatic processes.

In this field, our more than 100 years of experience in manufacturing and development of ceramic parts and our 40 years of know how in the plastic insert technology allow us to provide optimum solutions for your complex technical and economical needs.

*Thread guide with holder used as wear-resistant element in textile machines; material: glassfiber-reinforced PA6/ceramic*

*Thread guide unit used as wear protection and carrier element; material: PA/ceramic/metal bushing*



*Connector plug; material: silver plated (pins)/polyamide*

*Double ignition for oil-gas burners; material: steel/ceramic/PPS*

# Special processing
## Small input – great result

Special surface finishing processes are performed mostly to enhance the appearance of a product and to improve wear protection.

- lacquering
- in-mold-decoration
- galvanizing

is allowing us to produce parts with high-quality finishes.

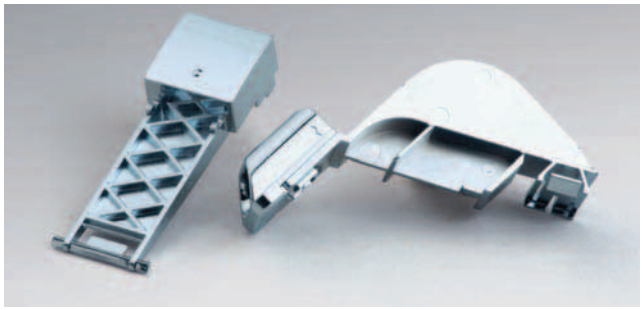
When painting or galvanizing, decoration of the parts takes place after the injection molding process.

In contrast to this, in-mold-decoration (IMD) takes place during the injection molding process by taking over the decoration from a carrier foil to the product. The decoration foil can be laid out and printed according to customer requirements making a wide variety of configurations possible.

*Lacquered heat-absorbing decoration panel for vehicles; material: glassfiber-reinforced, heat-resistant PPA*


*Loudspeaker panel in-mold-decoration; material: PPO/IMD decoration foil*


*Remote control for vehicles, with lacquered housing halves; material: ABS/PC, glassfiber-reinforced PA*



*Galvanized push button for appliances, material: special ABS; inlet funnel for spinning machine in the textile industry, chrome plated for wear protection; material: special ABS*

## Rauschert – overlook of products

### Plastic injection molded parts


Injection molded parts


Two-component plastic parts


System components


Composites


Special processes


Tower packings

### Technical ceramics


Electroceramics


Ceramics for lighting


Textile ceramics


High-temperature ceramics


Honeycombs


Ignitor components


Ceramic coating


Faucet plates


Pump components

More than 100 years of experience in supplying industrial customers makes the Rauschert Group a competent partner also for you! With 1,500 experienced employees in 12 countries at 17 production sites, Rauschert is ready for the global challenge.

For further information, contact us or visit our web site:

**www.rauschert.com**

# How to find us



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