

CONNECTIONS  
WITH CERTAINTY

PLASTIC-  
HYBRIDS

INTELLIGENT  
& FLEXIBLE





# PLASTIC- HYBRIDS

As a competent manufacturing partner for sophisticated plastic hybrids such as sensor housings, contact frames or connectors, we support our customers with know-how and many years of experience. The same applies to product development as well as the optimum design of tools and manufacturing concepts. We specialise in the processing of thermoplastics and inserts using fully or semi-automated processes, also for safety-relevant applications in the automotive industry. 2E mechatronic quality products can be found worldwide in a large number of applications and branches.

# FLEXIBILITY FROM DEVELOPMENT TO SERIES PRODUCTION

1  
Development

2  
Quotation

3  
Project  
planning

4  
Manufacture  
and testing

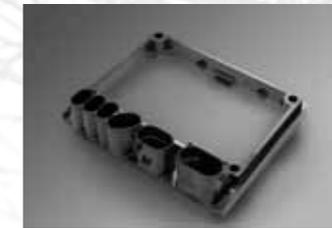
1 2E develops the manufacturing concepts for its plastic hybrids. A close network of suppliers guarantees the best possible quality and fast delivery times at a competitive price.

2 Before preparing a quotation we carry out a detailed feasibility assessment. Open issues are discussed in a technical meeting and possible solutions suggested. Together with our customers a detailed time schedule is then prepared.

3 Once the design has been approved by 2E mechatronic, the tools and machinery are manufactured. Throughout this process we are in constant dialogue with our suppliers. The initial sampling of the injection moulded tools and machinery involves an internal process audit.

Together with the presentation of the initial sampling test report of the finished part the customer usually also carries out a process audit.

4 2E employs highly qualified personnel in order to achieve a high level of efficiency enabling cost-effective manufacturing in a high-wage country such as Germany. 2E processes inserts (bushings or membranes) from strips or loose parts. Contacts with soldered, press-fit or bonded zones are processed in series production. Many inspection tasks are integrated in the process. Packing is fully automated. Manual intervention is only required for random checks. Visual inspection areas and coordinate measuring machines are available near the production line for this purpose.



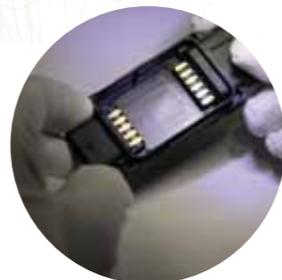
2E processes almost all technical thermoplastics including PPS and LCP.

# QUALITY

Certification in compliance with the automotive standard IATF 16949 guarantees a standardised documentation of your products.

The tools we use efficiently guide us through the project from development via the quality control department to manufacturing and dispatch. A lean interdepartmental project team considers the needs of all involved parties from the outset. Together it develops, for example, the producibility evaluation including risk assessment, FMEA and QM plans. The document exchange service guarantees prompt distribution of updated documents within the company as well as to our customers and suppliers. Customers receive samples according to their requirements, in most cases after the PPAP or VDA process. However, should any complaints arise, a well-established complaints process with analysis tools and 8D-Report is at our disposal.

*Successful certification by the TÜV SÜD Management Service GmbH: ISO 14001, ISO 9001 and IATF 16949.*



# SAFETY & SUSTAINABILITY

Our products are mostly installed in safety-relevant applications such as, for example, housings for sensors which can intervene in the brake system of a vehicle.

This demands a more critical inspection severity, monitored test equipment, extended documentation and better product traceability. With our extensive experience in this area we design our equipment and processes in accordance with the requirements and proactively suggest possibilities for improvement.

At 2E sustainable action is practised in all areas. For us this means pursuing a medium and long term strategy in all decisions and continuously implementing the necessary measures. Our internal procedures and solutions are committed to this concept. 2E thus directly supports active environmental protection.

We are proud of our many awards in the field of ecology.

# OUR PRODUCT RANGE

In addition to plastic hybrids 2E also develops and manufactures mechatronical components in Kirchheim unter Teck for a wide range of applications in the areas of automotive, industrial automation and medical technology. Our portfolio comprises high precision, fluidic capacitive 360° inclination sensors as well as MID-based products (multifunctional 3D interconnect devices) such as OLED/LED lighting modules or sensor elements. Furthermore, we are very involved in numerous research projects which pave the way for the emergence of pioneering manufacturing technologies and innovative products.

Further information on our portfolio can be found at:

[www.2e-mechatronic.de](http://www.2e-mechatronic.de)

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