

## Innovation and Precision in Technical Plastic Injection

Advanced solutions for automotive,  
industrial, and household appliances



## EXPERIENCE & EXCELLENCE IN THE PRECISION INDUSTRY

At Norject, we manufacture high-precision technical parts through the injection of technical plastics.



Since 1991, Norject has been synonymous with precision, quality, and advanced control in technical plastic injection. Over the years, we have evolved into a strategic partner for industries demanding maximum reliability in every piece.

We provide innovative, efficient, and precise solutions that help our clients optimize their production processes and enhance the performance of their products. We achieve this through our combination of advanced engineering, automation, and rigorous control of each stage of the manufacturing process.

- ✓ More than 30 years of experience in the precision industry
- ✓ Production of complex parts with strict tolerances.
- ✓ ISO 14001, and IATF 16949 certifications.
- ✓ Automation and real-time MES monitoring.



## “OUR LITTLE SECRET”

At **Norject**, precision is not just an objective, it is a standard.

“**Our Little Secret**” is based on five key pillars, ensuring excellence in every manufactured piece.



### High Precision

We manufacture components with precise tolerances thanks to our advanced machinery and real-time monitoring, ensuring millimetric accuracy in every piece.



### Advanced Control

Automation and digitalization enable real-time adjustments, optimizing quality and ensuring error-free production through artificial vision and data analysis.



### Specialized Injection

We are experts in high-performance technical polymers, ensuring parts with optimal properties for advanced industrial applications.



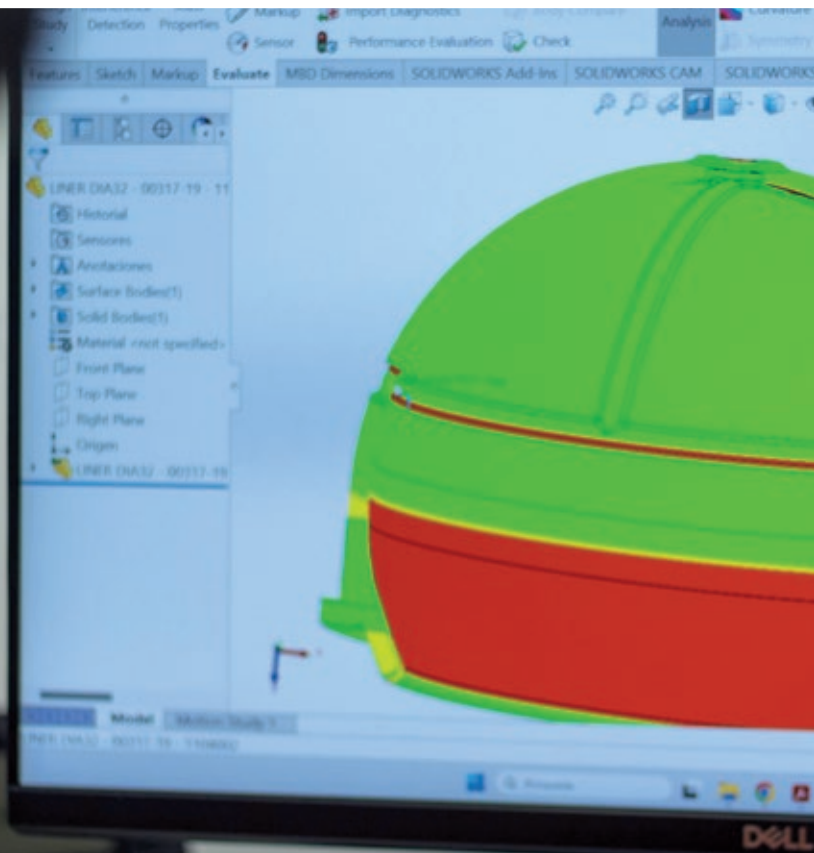
### Advanced Inspection

Each part undergoes strict quality control with CMM, artificial vision, and dimensional analysis, detecting early defects and avoiding rework.



### High Conversion Capacity

We replace metal parts with plastic ones, maintaining their functionality while improving weight, cost, and mechanical performance.



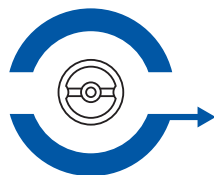
# INNOVATION FROM IDEA TO PRODUCTION

We transform ideas into high-performance technical parts. Our development service ensures efficiency, quality, and customization in every project, covering the entire product lifecycle.



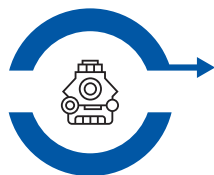
## Materials Selection

We evaluate the physical and mechanical properties of each material to choose the most suitable option for the specific application.



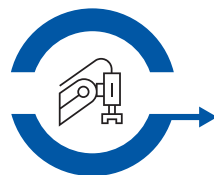
## Advanced Simulation

We use simulation software to predict material behavior and optimize injection parameters.



## Functional Prototyping

We develop prototypes to validate the design before mass production.



## Mass Production

We implement optimized manufacturing with standardized and automated processes.

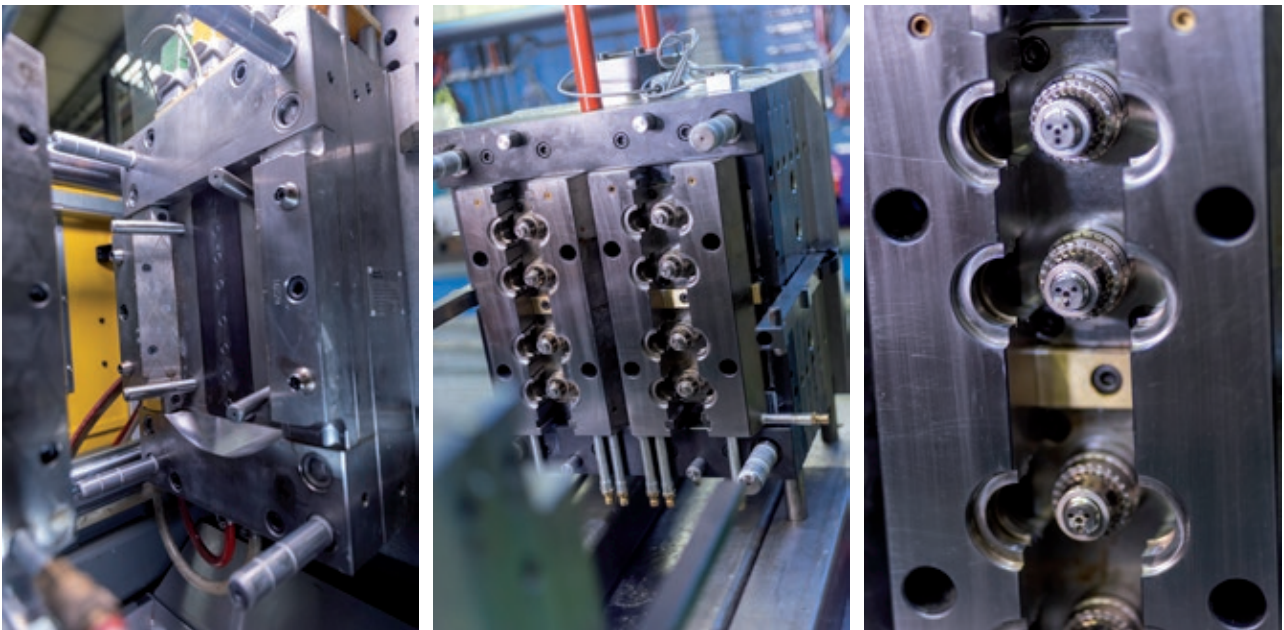


## Packaging Solutions

We design custom packaging solutions to ensure product protection and efficient logistics.

# MOLD MANUFACTURING PRECISION AND DURABILITY IN EVERY MOLD

The mold is the heart of production. At Norject, we design and manufacture high-precision and durable molds, ensuring efficient production cycles and consistent results.



## **Mold Optimization for Maximum Efficiency**

To ensure optimal performance throughout the mold's lifespan, we work on integrating the process-machine tandem, ensuring efficient and cost-effective manufacturing.

- ✓ Hot runner with direct injection to improve quality and reduce waste.
- ✓ Thermal optimization and cooling for greater efficiency.
- ✓ Durable materials (steels, coatings) that extend mold life.
- ✓ Automated extraction for faster cycles.
- ✓ Multi-cavity design to increase productivity.
- ✓ 2K injection and overmolding for bimaterial solutions. Solutions designed to maximize profitability, precision, and durability.

# TECHNICAL PLASTIC INJECTION HIGH-PERFORMANCE MATERIALS

Our expertise in precision injection allows us to select and process materials that ensure mechanical, thermal, and chemical resistance, guaranteeing the reliability of the final product.



## These are some of the materials used in our injection processes:

- LPC (Liquid Crystal Polymer)
- PE (Polyethylene)
- PA (Polyamide)
- PA 66 (Polyamide 66)
- PBT (Polybutylene Terephthalate)
- PC (Polycarbonate)
- PET (Polyethylene Terephthalate)
- PEEK (Polyetheretherketone)
- PMMA (Polymethylmethacrylate)
- PP (Polypropylene)
- POM (Polyoxymethylene)
- PPS (Polyphenylene Sulfide)
- PPA (Aromatic Polyamide)
- PS (Polystyrene)
- TPV (Thermoplastic Vulcanizate)

We are capable of processing any injectable polymer, specializing in High-Performance Materials and Engineering Polymers.

## **PART ASSEMBLY COMPREHENSIVE ASSEMBLY AND MANUFACTURING**

In addition to component manufacturing, we offer a **complete parts assembly service**, ensuring the perfect integration of components into the final product.



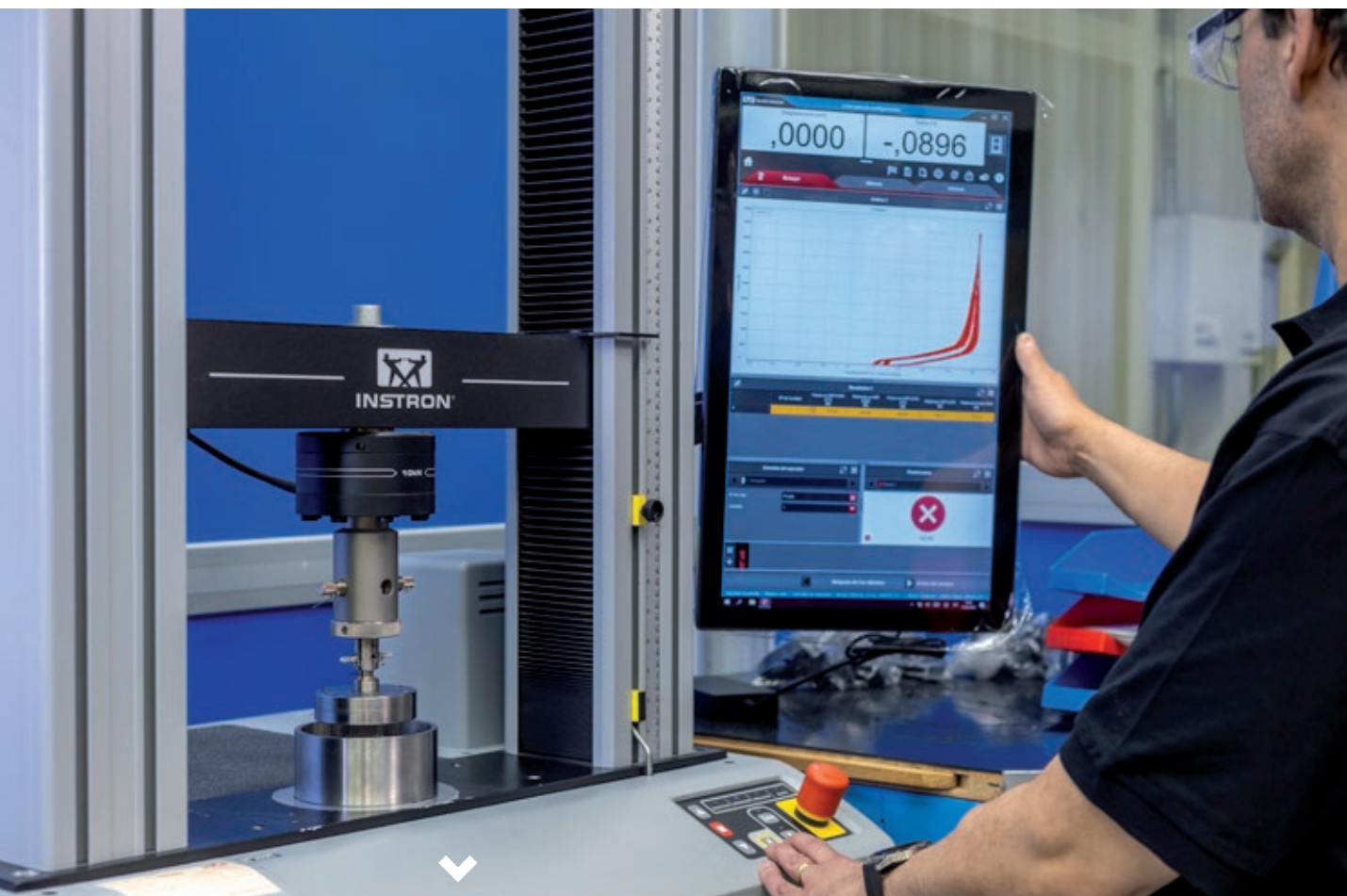
**Our advanced industrialization enables key complementary processes for the complete manufacturing of the product, including:**

- ✓ **High-precision assemblies** to ensure the correct functioning of the sets.
- ✓ **Specialized adhesive bonding**, optimizing the mechanical and thermal resistance of the joints.
- ✓ **Industrial marking for traceability**, identification, and customization of components

Thanks to our expertise in process engineering and automation, we guarantee **efficiency, quality, and cost reduction** at every stage of assembly, offering our clients solutions ready for integration into final production.

## PRECISION INJECTION AND ADVANCED QUALITY CONTROL

Precision is not just an objective, but a standard. We apply a science-based approach, automation, and real-time monitoring to optimize every stage of the production process. With cutting-edge technologies and thorough control, we ensure stability, efficiency, and unwavering quality in every manufactured piece.



### ADVANCED INJECTION PROCESS

Our Scientific Molding methodology and MES monitoring allow instant adjustments, reducing defects and ensuring repeatability in every batch. Through advanced simulation, we optimize mold design and material flow, minimizing waste and cycle times.

- ✓ Early defect detection and automatic removal of non-conforming parts.
- ✓ Real-time measurement of key parameters (pressure, temperature, stability).
- ✓ Compliance with international standards (IATF 16949, ISO 9001).

## ADVANCED MEASUREMENT PROCESS

Each part undergoes automated inspection, with **artificial vision and advanced metrology (CMM)** to guarantee precise tolerances. We apply **predictive analysis** to detect deviations before they impact production, ensuring rigorous control



- ✓ **Early defect detection** and automatic removal of non-conforming parts.
- ✓ **Real-time measurement** of key parameters (pressure, temperature, stability).
- ✓ **Compliance with international standards** (IATF 16949, ISO 9001).

## PRECISION SOLUTIONS FOR DEMANDING INDUSTRIES

At Norject, we develop high-precision technical components, tailored to sectors where reliability, durability, and absolute control of the production process are essential. Our experience and work methodology enable us to offer innovative and efficient solutions to three key industries:



### AUTOMOTIVE

Precision Components for the Automotive Industry

- ✓ Valves and fluid management systems
- ✓ Gears and rotors
- ✓ Retainers and fasteners



### HOUSEHOLD APPLIANCES

Precision Components for White Goods

- ✓ Housings and turbines for electric motors
- ✓ Valves and water management systems
- ✓ Functional structures and supports



### INDUSTRIAL

Precision Parts for Industrial Applications

- ✓ High-strength seals and gaskets
- ✓ Components for PCB manufacturing
- ✓ Technical structures and functional supports



## DISTRIBUTION AREAS: GLOBAL COVERAGE WITH EFFICIENT SERVICE

At Norject, we offer global distribution service, catering to over 50 locations worldwide. We manage logistics comprehensively, ensuring optimized delivery times and guaranteeing the availability of parts in each market



Thanks to our infrastructure and network of logistics partners, we operate shipments to Europe, America, and Asia, collaborating with leading international operators.



**nörject**  
Our little secret



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