



REVOLUTIONIZING THE PLASTICS INDUSTRY WITH ADVANCED LASER MICRO AND NANOSTRUCTURING TECHNOLOGY

What We Do: Utilize laser micro and nanostructuring technology to enhance plastics by modifying surface microstructure.

Our Edge: Efficient processing of complex 3D parts and metallic moulds for injection moulding enables mass production of functionalized polymeric components.

Key Applications and Benefits

Automotive & Aerospace

- Improve plastic-to-plastic and plastic-to-metal bonding
- Enhance adhesion for coatings
- Enables production of lightweight composite materials and plastic-metal hybrid components

Medical Devices and Equipment:

- Generate antibacterial surfaces on plastic medical tools
- Enables improved prosthetic integration
- Enhance biocompatibility and guides cell growth

Packaging Industry:

- Create unique textures and patterns on plastic packaging
- Enhance seal strength on plastic films and containers
- Incorporate anti-counterfeit features into packaging
- Enables anti-bacterial packaging

Food and Beverage Industry:

- Improve food safety with micro and nanostructured surfaces
- Improve usability with enhanced grip on plastic utensils
- Boost aesthetic appeal with laser-etched branding or decorative patterns on reusable plastic containers

Adhesion Details



Paint durability

Increase resistance to abrasion, scratching, and corrosion with laser-structured surfaces



Surface bonding

Achieve optimal adhesion between different materials for enhanced durability and strength



Coatings and composite materials

Improve interactions between coatings and the composite materials

Areas of Application



AEROSPACE



AUTOMOTIVE



TOOLING



POWER AND ENERGY



FLAT PANEL DISPLAY



FOOD AND PHARMACEUTICAL



BIOMEDICAL

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