

# REA JET

INDUSTRIAL CODING AND  
MARKING SOLUTIONS –  
MADE IN GERMANY

AKRO-PLASTIC 

## Permanent Laser Marking of Plastic

REA Laser Systems & AKRO-PLASTIC



# Perfect Markings

## Marking with light



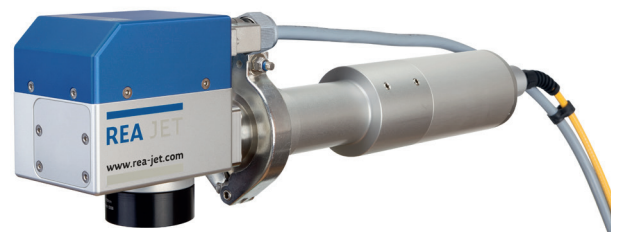
The requirement for parts-specific marking is a major challenge for manufacturers of a wide variety of products for global markets. Special solutions are required for the permanent marking of plastic products in particular. We have recognized this need and can offer our customers a reliable solution for the captive marking of plastics.

The specialist for industrial coding and marking solutions REA Elektronik GmbH and AKRO-PLASTIC GmbH as specialist for innovative and application-oriented plastic compounds develop in close cooperation processes and materials for high-contrast markings on plastics.

During compounding, specific laser-sensitive additives are added to plastics. These can be marked individually with variable data using laser systems from REA in compliance with strict industrial production standards.

The optimized energy input with the REA JET FL (fiber laser) causes a color change in the material. This results in captive and thus forgery-proof markings.

A significant advantage of the process is the flexibility of the laser. It can mark in recesses and in areas that are inaccessible to conventional marking methods. In the case of plastic products, these can be versatile molded and injection-molded parts.



REA JET FL Fiber Laser



High-contrast color change on plastic with additives

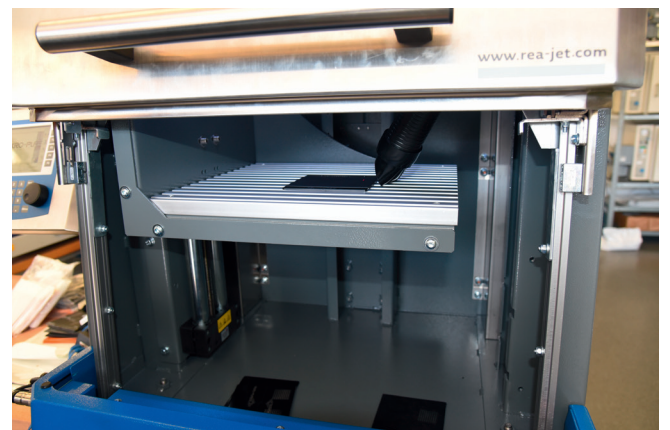
## Applications

Laser marking of plastics is used in a wide variety of industries, from the automotive industry to the sports and leisure business, in a wide range of applications:

- Automotive and aviation industry
- Rail transport and railroad industry
- Medical and laboratory technology
- Construction and electronics industry
- Catering and household goods
- Advertising industry
- Sports and leisure, etc.



Mixing of the compound



Laser marking station as stand alone manual workstation



## Functional Pigments for Laser Marking

It's the mixture that matters

How to mark plastic with color change using a laser system? The answer lies in the composition of materials.

For a technical or decorative marking on plastics, AKRO-PLASTIC has developed special compounds, which allow a dark color change on natural base color and a light color change on black colored plastics. For special applications, color changes in various colors on dark base color are also possible.

Laser-markable engineered plastics from AKRO-PLASTIC with special laser-sensitive additives are marked with the suffix LA and are also available with a high content of reinforcing materials.

Laser sensitive additives are also available as master-batch at AF-COLOR and can be combined with different polymers.



Plastic masterbatches in different color variants

### Can you mark with light?

The user can vary the intensity of the laser marking and choose between light to dark color change on different background colors as well as on transparent products.

### Advantages of laser marking for your production process:

- **Contact-free:** Exact and efficient markings without mechanical wear. Can even be used on soft, rough or corrugated surfaces
- **Without ink and solvents:** Consumable-free and no follow-up costs
- **Fast:** Razor-sharp markings can also be applied to moving parts at an exact position in a very short time

- **Individual:** Application of variable data such as individual part markings, 1D and 2D codes, texts and graphics
- **Cost reduction:** Material marking can be fully automated and without pre-treatment steps. The cost-intensive storage of pre-printed products is reduced, with minimal maintenance requirements.

### Advantages REA JET FL Fiber Laser

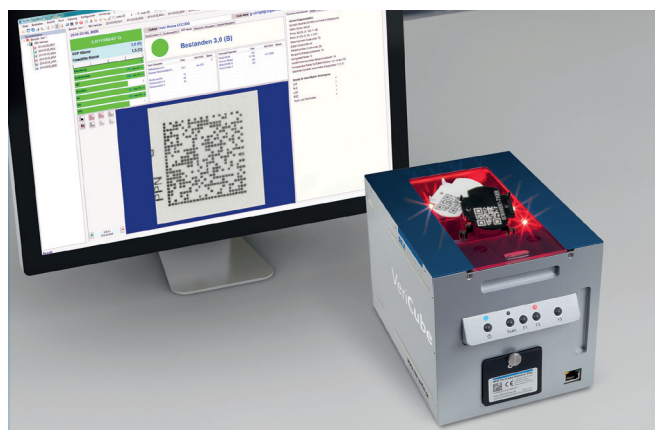
- Compact design for easy integration
- State-of-the-art interfaces for a wide range of control options
- Laser systems can easily be added downstream to the injection molding process
- REA JET TITAN Platform, the uniform operating concept for all REA JET systems
- Unlimited industry 4.0 capability

### Verify code quality with REA VERIFIER

Verification systems from REA VERIFIER ensure that code markings are error-free and that the quality requirements of the applicable standards are met.

### Advantages of REA VERIFIER verification systems

- Ensuring high first read rates
- Compliance with high code quality and applicable standards
- Avoidance of rejects through timely detection of false markings



REA VeriCube - Verification of 2D codes on plastic parts

**REA JET**

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