PRODUCT BULLETIN

Cesa™ Laser Marking Additives

Cesa™ Laser Marking additive technology gives manufacturers a new level of control in laser marking polymers with speed and clarity. This laser enhancement additive works by converting visible, UV or IR laser light energy into thermal energy, creating surface marks that contrast the color of resin material. The additive technology can be custom formulated for specific resin and laser types. It provides high contrast, permanent and repeatable markings in one step for increased manufacturing efficiency.

A laser mark can last the lifetime of a part—it should be resistant to solvents, oils and scratching, and be easy to read. Cesa Laser Marking solutions not only contain a laser marking additive but also deliver a part's color and can include other performance enhancing additives such as those for scratch or UV resistance.

Cesa laser marking solutions can be used with a variety of thermoplastics including, but not limited to:

- PP
- PC/ABS
- Polyamide
- Polyacetal (POM)
- PE
- PET
- PMMA
- Polyolefins

Applications include:

- Traceability, UPC, Branding
- Food Packaging Lot Codes
- Industrial Safety Tags & Equipment
- Wire & Cable Part Numbers & Gauge Size
- Automotive Components

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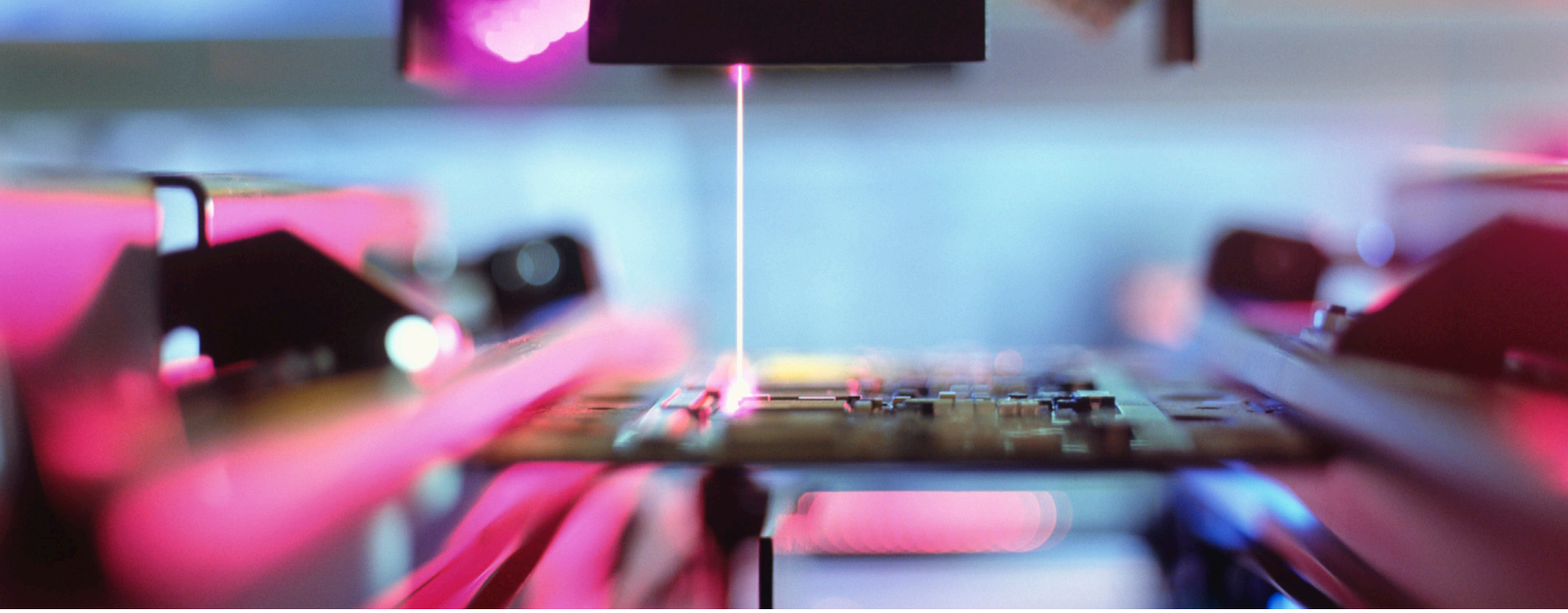

WHY LASER MARKING?

A laser mark remains legible even after many years. Unlike other marking processes, it does not require consumables such as hot foil tapes, inks and solvents. It also eliminates the need for labels, making it a more sustainable solution. The cost associated with maintaining a laser marking system is lower than for printing systems, and laser marking supports greater design and production flexibility; changing a marking is as simple as pushing a few buttons on a laser marking unit.

HOW DOES LASER MARKING WORK?

During processing, a laser beam activates laser sensitive additives within a masterbatch. The activation changes the molecular structure of these additives, causing a color change that provides the vivid contrast of laser marking. Laser marking typically has little effect on part integrity. The mark can be white or dark in color.

GETTING STARTED WITH LASER MARKING

Selection of an appropriate laser marking additive is critical to achieving excellent marking performance. Avient has experience formulating Cesa Laser Marking solutions that can work within a wide variety of polymers and processes, including injection molding, blow molding and extrusion. Keys to successful laser marking projects include collaboration and expertise. Avient has a track record of successfully collaborating with customers in developing solutions for a wide variety of applications, materials and processes.

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