



» INDUSTRY BULLETIN

Cesa™ Laser Additives

Laser Marking Solutions for the Transportation Industry

Many thermoplastic automotive parts require a permanent marking, and laser marking is among the most efficient means to do so. A laser mark lasts the lifetime of a part; is resistant to solvents, oils, and scratching; and is easy to read. Our Cesa™ Laser Additives not only provide high contrast, permanent, and repeatable markings, but can also be customized with other additives for scratch and UV resistance. Moreover, they can be combined with color into Smartbatch™ concentrates to deliver both the part's target color and laser marking performance.

Cesa Laser Additives can be used with thermoplastics commonly used in vehicles including:

- PP
- PC/ABS
- Polyamide
- Polyacetal (POM)

WHY SELECT 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. 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.

Applications for laser marking include:

- Safety belt buckles
- Backside of A-, B- and C-pillars
- Critical safety parts
- Dashboard controls and gauges
- Knobs and buttons

In addition to parts that may require a permanent mark, laser marking also can be used to add personalization or branding elements to a vehicle. For example, a laser mark can provide the appearance of stitching where two parts adjoin.

GETTING STARTED WITH LASER MARKING

No universal laser marking solution exists; selection of an appropriate laser marking additive is critical to achieve excellent marking performance.

Avient has experience formulating Cesa laser marking additives that can work with 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 the transportation industry and developing solutions for a wide variety of applications, materials and processes. Let's collaborate on your upcoming projects.

Want to learn more? Contact us at info@avient.com or go to [avient.com](https://www.avient.com).



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.

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