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 Marking Additives not only contain a laser marking additive but also deliver a part’s color and can include other additives such as those for scratch or UV resistance.

Cesa Laser Marking 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.
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
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.