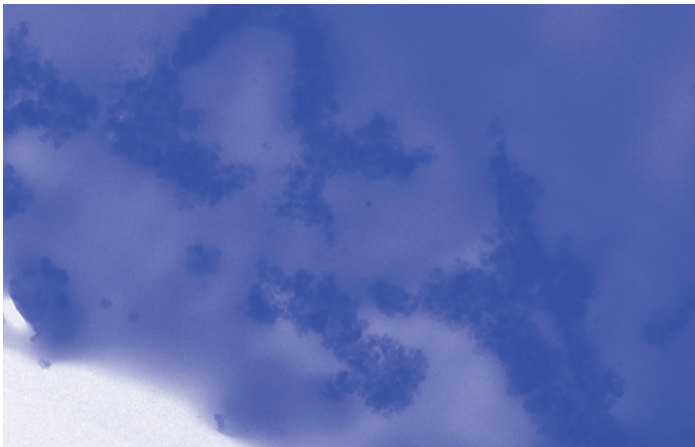


The key player in Innovative Materials

MACOL: Unalterable colour laser marking for thermoplastic materials



Numerous solutions for marking thermoplastic materials exist today, but none is guaranteed to last in the face of external damage.

The Institut Carnot MICA, aware of the interest in developing an innovative solution that makes the marking indelible, has brought together the expertise of two of its members, the Institute of Materials Science in Mulhouse (IS2M) and IREPA LASER, specialists in surface treatment and laser technology, as part of the "MACOL" resourcing project.

In less than a year, MICA teams have successfully developed a marking technique that combines marking ink and lasers to migrate ink particles below the surface of the material. This marking, which requires no preparation of the surface, is thus made more resistant, in particular in the face of mechanical (scratches) or chemical (perfume) damage.

What's more, initially tested with black monochrome ink (composed of carbon, whose good interaction with lasers was well known), this technique is today available with colours thanks to the development of special inks, with the additional option to print in 3D.

The excellent results obtained are of great interest to the industrial world. The work continues today as part of an FUI project, whose consortium sees the addition of Valéo, Augros and TIFLEX. Technology transfer is expected within a year.