

## Microplastics and road marking performance

### How to minimise the former and maximise the latter

Microplastics – although there is still no consensus on what exactly microplastic are - can be categorised as either primary or secondary. The addition of primary microplastics to products has been strictly regulated by the EU. The raw materials that are used for road marking materials do however not count as primary microplastics.

Secondary microplastics are created when plastics are exposed to physical and chemical factors in nature, leading to their disintegration. This is where road markings step in.

Road markings are reputed of being a contributor to microplastic pollution as they wear off over time. But normally microplastics only occur when the road marking is kept in use beyond its intended service life, i.e. when it ceases to perform. At that point the road marking is to be renewed and the creation of microplastics is halted. The process of renewal can be repeated until the thickness of the successive layers necessitate a complete removal and the road marking products can be recycled in a controlled manner.

The assumption that all sold and applied road markings are a source of microplastics is therefore incorrect, and consequently the quantities of released microplastics by road markings, as advanced by various sources, get overestimated.

The correct estimation of microplastics released by road markings remains problematic, due to the multitude of varying contributing factors, approaches and analysis methods. On the other hand it is certain that the quantities of microplastics released by road markings are far inferior to the quantities released by road and tyre wear.

The debate should therefore not be held on how much microplastics are released by road markings but on how to minimise the release. The method to do so is quite simple: maintain the road markings properly by renewing or refreshing them as soon as they lose performance.

This is a clear message to the Road Administrators throughout Europe to intensify and maintain their efforts to keep the road markings in good condition, thus supporting both environment and road safety, and additionally contributing to automated and interconnected mobility.

There is also a task for the EC to provide incentives and (financial) support to the Road Administrators in maintaining their road network with performing road markings.

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