

# Cold recycling with emulsion

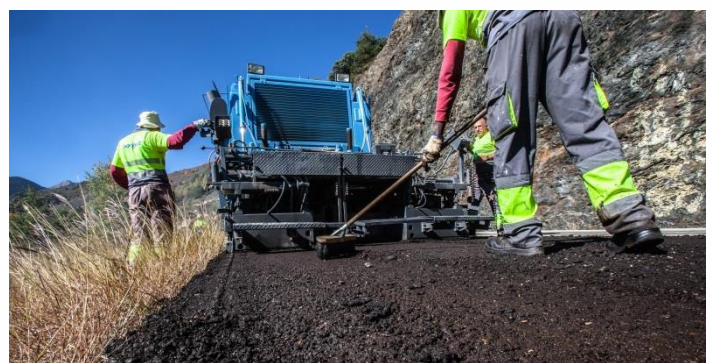
Cold recycling with emulsion is without doubt the most sustainable road surface rehabilitation technique.



**In-place surface rehabilitation.** This technique permits structural rehabilitation of old surfaces using a homogeneous mixture of milled material from the existing surface, bitumen emulsion, water and possibly additives. All this is carried out at ambient temperature in a single, in-place process.

## Main features

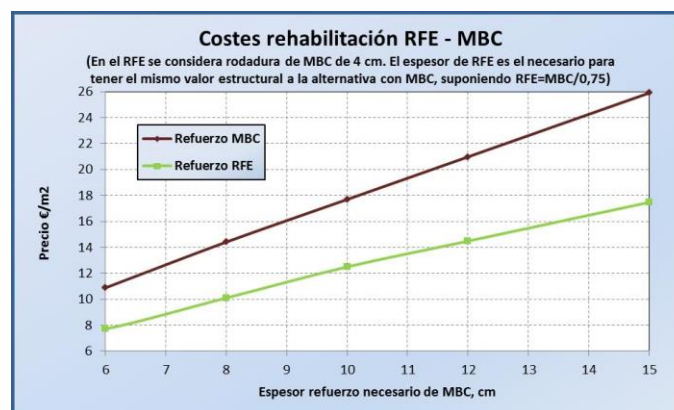
- / It is an efficient and sustainable alternative to the conventional ‘milling and replacing’ process, as it fully reuses the old materials on the road.
- / The work system means the mechanical properties of the treated surface are regenerated, producing a fully homogeneous surface.
- / It is performed in a single operation
- / The equipment consists of:
  - A large supply tank with two compartments for emulsion and water.
  - A high-performance miller-mixer with the capacity to process existing paving and produce an appropriate grain size. Dosing equipment for water and emulsion injection.
  - Paving and pre-compaction screed with continuous distributor and automatic levelling system.
  - Compaction equipment consisting of a 35-t isostatic pneumatic compactor and 17-t tandem roller.
  - Protective spray system for the maturing and curing process.





## Cost savings and environmental sustainability

- Huge reductions in greenhouse gas, vapours and solid particle emissions compared to other techniques, as it is carried out at ambient temperature. The cold in-place recycling technique reduces CO<sub>2</sub>e emissions by 45% compared to milling and resurfacing.
- Major energy savings in every step of the process: raw materials, treatment, manufacture, transport, spreading and tipping, ensuring lower production costs. Rehabilitation costs are 25% lower for a structurally equivalent section.
- Use of fewer natural resources, waste recovery, lower carbon footprint, circular economy.



## Extensive technical knowledge and specialisation

- The capacity to provide twin equipment deployed in parallel means the full lane width can be treated, thus obtaining better geometric characteristics, especially crosswise, and minimising lengthways joints.
- Optional design and manufacture of specific emulsions in our facilities, adapted to the characteristics and needs of the existing surface.
- Over 30 million m<sup>2</sup> executed by our teams since 1993 make us a benchmark in the industry, guaranteeing experience and ensuring proper execution.