

## RUGOFIR

Ultra-fine high-performance mixture capable of restoring the required parameters in wearing courses.



### A wearing course with minimum thickness

Rugofir is a system that consists of the combined application of a highly modified bitumen emulsion (Elastam) spray followed by an ultra-fine layer of a hot bituminous mix. The system uses specific paving machinery fitted with a spray ramp.

The result is a wearing course of less than 2cm thick with a high bitumen content, provided by both the bituminous mix and the emulsion.



### Main features

- The Rugofir system creates a single-grain layer to prevent the granules in the mixture from being dislodged by traffic stress over time.
- This single-grain layer guarantees that the initial surface characteristics of the paving last longer compared to other mixtures.
- The high binder content means the treatment seals existing cracks and prevents the appearance of new ones.
- A wearing course with a negative texture is created to provide a larger contact surface between tyres and paving.
- Thanks to the adaptability of the system, small variations of the grain size in the mixture can produce surface textures of between 0.8 and 2 mm and TFC values of up to 80.
- High performance. The road can be reopened to traffic quickly since the mixture is applied directly onto the existing surface without requiring prior work and it cools quickly as it is ultra-fine.

## Application and uses

The paver has a built-in spray ramp that allows the emulsion to be applied immediately before the paving screed.

The hot bituminous mix and emulsion become destabilised when they come into contact, accelerating breakage. This causes the residual highly modified bitumen in the emulsion to coat the aggregates in the mixture, ensuring full integration.

The amount of bitumen used (the bitumen in the mixture and that provided by the emulsion) creates a much thicker mastic which, in addition to ensuring adhesion between layers, is more waterproof. This makes it more resistant to frost

and dirt and easier to clean, which helps to maintain the TFC values and increase road safety.

It is not necessary to wait for the emulsion to cure before laying the mixture when using this method. The execution speed means shorter commissioning times, which allows opening to traffic no more than 20 minutes after spreading.

Depending on the type of road, no prior work, such as milling the surface to be replaced or adhesion spraying, is necessary as the treatment is applied directly onto the existing surface.

