

## ASPHALT ROADS MADE WITH RUBBER DUST FROM DISCARDED TYRES IN SPAIN

In Spain there are more than 1,600 kilometers of asphalt roads paved with rubber dust from discarded tyres, an environmentally sustainable technology that contributes to the Circular Economy approach.



These kilometers of roads use a new generation of bituminous mixtures modified with a rubber-based product from a waste, the end-of-life tyre, which has been transformed into a resource for increasing the reliability of the road surfaces.

In May 2018 [SIGNUS Ecovalor Collective Management System for End-of-Life Tyres](#) has published the Report [20 years of rubberized asphalt mixtures in Spanish roads](#).

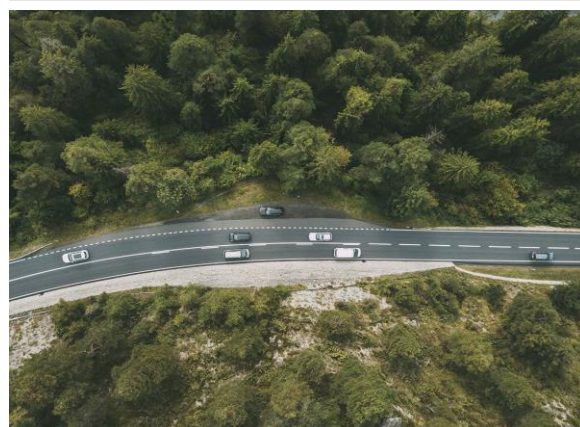
The Report presents the main data and results of the innovative process that has been developed in Spain by adopting asphalt mixtures modified with rubber powder from the crushing and granulation of discarded tyres. The Report is based on a study of the 300 works executed between 1996 and 2017 on the entire national territory, equivalent to about 1,600 kilometres of roads and with a rubber powder consumption of almost 17,000 tonnes. It also presents the techniques used and an economic study in which conventional mixtures are compared with bitumen-rubber mixtures.

The Report, made by SIGNUS Ecovalor at the request of the General Direction of the Ministry of Development of the Spanish Government, shows that rubber dust brings numerous technical, economic and environmental advantages. In particular, the study of the works executed has shown that over the years and despite the adverse conditions to which they have been exposed, roads built with tyre dust maintain an excellent level of quality.

Two other publications of great interest can also be found on the SIGNUS Ecovalor website:

- The [Guide to the manufacture of bitumen with tyre powder](#) published in 2014;
- The [Guide to the manufacture and implementation of bituminous mixtures with tyre powder](#) published in 2017.

SIGNUS Ecovalor is a non-profit organization created in 2005 in Spain to ensure the proper treatment of end-of-life tyres and their transformation into valuable raw materials.



One of the most important applications for maximising this value is the use of tyre dust in bituminous mixtures, giving roads specific properties and closing the cycle of the Circular Economy.

The presentation of the Report underlines that for more than twenty years, with the active participation of public administrations, construction companies, asphalt mix manufacturers, bitumen suppliers, among others, a continuous process of research, development and implementation of modified asphalt mixtures has been developed in Spain. Experimental roads have been constructed using different application techniques of end-of-life tyre powders. These techniques have been improved to perform many reinforcement and rehabilitation works in existing and degraded roads and to build new roads.

At the same time, the competent institutions of the Government of Spain have developed a specific legislation which regulates the characteristics of asphalt mixtures in which end-of-life tyre powders have been included. This has allowed the standardization of these products and has encouraged the use of them.

SIGNUS Ecovalor published the Guides and the Report to promote the use of rubber powder on Spanish roads and comply with the requirements established by the Strategic Waste Framework Plan 2016-2022 of the Ministry of Agriculture and Fisheries, Food and Environment, and by the policies promoting the sustainability of economic activity, in the framework of Circular Economy strategies of the European Union.

However, these publications are of great interest to all countries and stakeholders oriented to adopt this innovative solution to build the sustainable roads of the future.

This solution allows at the same time to create more durable roads, to decrease the noise level of vehicles transiting the roads, to eliminate waste such as discarded tires that generate negative effects on the environment and the health of local communities, to create a new green supply chain to manage the recycling process, generating new jobs.

#### To know more

[SIGNUS Ecovalor website](#)

[20 años de mezclas asfálticas con polvo de neumático en las carreteras españolas](#)

[Guía para la fabricación de betunes con polvo de neumático](#)

[Guía para la fabricación y puesta en obra de mezclas bituminosas con polvo de neumático](#)



[Blog.signus.es](http://Blog.signus.es)

[SIGNUS 2017 Report](#)

[SIGNUS Library](#)

[Article in interempresas.net](#)

[Article in lainformacion.com](#)

[Article in efe.com](#)

[Article in residuosprofesional.com](#)

[Article in Ecopneus.it](#)

[End-of-life tires in WBCSD website](#)

