### Worldwide possibilities



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## Sulphur concrete crane track sleepers

Designed for the future! Remeltable concrete, an industrial revolution! All without loss of quality. Sulphur concrete is the most prominent new circular material for the construction of infrastructure with minimal impact on the environment.

Sulphur concrete is similar to classical cement concrete, with cement and water being replaced by sulphur as its component. The production of sulphur concrete is a physical process of melting and solidifying that can be repeated infinitely. As a result, sulphur concrete is 100% circular and can be reused endlessly in identical applications. The 100% circularity is also guaranteed with the exclusive use of primary and high-quality raw materials.

Due to the unique properties of the material, the sleeper can be remelted and reused at the end of its life, including all its integrated components.





## Sulphur concrete railway sleepers

The sleepers made from sulphur concrete are chemically stable and have undergone various European accreditation tests by railway infrastructure managers.

Several tests have shown that sulphur concrete is as resistant to the high dynamic load of trains as traditional concrete. For this purpose, a test track has been monitored for over 5 years. It is also less porous than classic concrete. This means that sulphur concrete is less susceptible to infiltration (e.g. water). Therefore, it is also highly resistant to chemical damage and attrition.

Due to the unique properties of the material, the sleeper can be remelted and reused at the end of its life, including all its integrated components.

Sulphur concrete has thus all the advantages of a material designed for the future.





# Positive characteristics of sulphur concrete



#### Low CO2 Emissions

Replacing cement as a binding agent by sulphur, a residual product from petrochemicals, and the low energy production process of sulphur concrete results in a reduction of CO2 emissions by at least 40% compared to classic cement concrete and other alternatives.



#### 100% Circular

The physical process of melting and solidifying can be repeated infinitely. This way, sulphur concrete can be reused endlessly in an identical application, without loss of quality.



#### No Water Consumption

By replacing water and cement with sulphur and applying a production process that does not require water, the use of sulphur concrete underpins the priorities of the European Sustainable Development Strategy.



#### Acid-Resistant

Sulphur concrete products are acid-resistant. They can be used in aggressive environments (pH 0-12).



#### **Dense Structure**

Sulphur concrete has very low permeability. The water absorption is a maximum of 0.5%. This contrasts significantly with classical cement concrete, where these values vary between 3 and 8%.