

By using waste derived fuels, we're reducing reliance on fossil fuels and embedding circularity at the heart of cement manufacture.

# PLANET

## CIRCULAR ECONOMY

### Waste-Derived Fuels in Cement Manufacture



Tarmac continued to make progress in reducing the reliance on fossil fuels in cement manufacture by increasing the use of waste-derived fuels across its cement operations. Using other people's waste as an energy source helps conserve natural resources, diverts material from landfill and enables the replacement of fossil fuels with lower carbon alternatives. This approach forms a key part of Tarmac's wider commitment to circular economy principles and more sustainable construction.

Cement manufacture is inherently energy-intensive and has traditionally relied on coal and petroleum coke to generate the high temperatures required for production. However, the cement manufacturing process is uniquely suited to the

use of waste-derived fuels through a process known as co-processing, in which the energy from the fuel drives the chemical reactions required to make cement, while the mineral content of the material is simultaneously incorporated into the final product. Unlike other energy-from-waste options, co-processing is highly efficient and generates no residual waste, ensuring that all usable material is permanently recycled into a durable construction product.

#### Making Practical Use of Waste-Derived and Biomass Fuels

During the reporting year, Tarmac made use of 165,521 tonnes of waste-derived fuel across its cement business. This represented 53.1% of the total thermal input required for cement manufacture. A proportion of these fuels are fully biomass-based, including materials such as waste wood and processed sewage pellets, which are regarded as carbon neutral. Others, including tyres and solid recovered fuel (SRF) derived from materials such as paper and cardboard, contain a proportion of biomass and therefore deliver significantly lower carbon emissions than traditional fossil fuels. By displacing fossil fuels with alternative materials, the business continues to reduce the embodied carbon associated with cement production while supporting responsible waste management across the wider economy.

This transition is supported by in-house technical specialists who identify, assess and approve suitable waste materials for use as fuels. Their expertise ensures that all materials meet strict performance, environmental and quality standards, enabling consistent and safe operation within cement plants.

## Looking Ahead

The continued expansion of waste-derived fuels across Tarmac's cement operations demonstrates how circular economy principles can be applied at scale within heavy industry. By co-processing waste materials, reducing landfill, lowering fossil fuel consumption and capturing value from residual materials, Tarmac is strengthening the resilience of its cement business while supporting lower carbon construction.

As further operational improvements and fuel substitutions are implemented, the use of waste-derived fuels will remain central to reducing the environmental impact of cement manufacture and delivering more sustainable solutions for the built environment.