

Alternative Fuels: Indispensable Resources for Sustainable Production









Many waste materials and by-products from other industries serve as valuable raw materials for HeidelbergCement: We use these **resources as alternatives** to natural raw materials and fossil fuels in the production of cement, and to support the Circular Economy. At the same time, these efforts help reduce our CO₂ emissions.





What are alternative fuels?

Alternative fuels are predominantly waste materials that cannot be recycled in full. HeidelbergCement co-processes waste-derived fuels and raw materials in a safe, transparent and sustainable way.

Did you know?

-  Fossil fuels have a negative impact on the environment – and they are finite. We are therefore investing in the **use of alternative and secondary fuels** to replace fossil fuels such as oil, gas or coal in cement clinker production.
-  Cement production contributes to societal waste management by **utilising pre-processed and quality-controlled waste**, such as non-recyclable household waste or biomass (e.g. dried sewage sludge or waste wood), as well as waste products from other industries.
-  Depending on the degree of technical modernisation and production capacity, we can already generate **over 90% of the thermal energy** in the kilns of our cement plants using secondary fuels.
-  Co-processing as a fuel in clinker kilns is a worthwhile option, since the mineral ash produced when using alternative fuels **replaces raw materials** and is fully incorporated in our products as a mineral component.
-  The use of alternative raw materials and fuels is always part of an **official approval procedure**. The high temperatures in the clinker burning process and long retention times offer the best conditions for **complete burnout with the lowest emissions** at the same time.
-  An increased use of alternative fuels in cement plants has a direct **positive impact on the CO₂ footprint** of our industry. It also helps to avoid harmful decomposition-related emissions of waste in landfills.

What we do

-  Until 2030, we aim to increase the share of alternative fuels to **43%** of the fuel mix (2020: 25.7%), and to double the biomass rate from roughly 9% to **19%**.
-  This is one of the key levers to achieve our overarching goal – to reduce our CO₂ emissions to **under 500 kg per tonne** of cementitious material by 2030 compared to 1990.
-  We follow the theme **“local solutions for local waste”**: For most efficient and compliant sourcing of alternative fuels the coordination is organised on national levels as much as possible.
-  We enforce the sharing of best practices across countries in order to accelerate the **global utilisation** of alternative fuels efficiently. This is supported by a global working group chaired by a member of HeidelbergCement’s Managing Board.

