

## Alternative fuels: The 'valorisation' of waste in the cement industry

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The power requirement for cement making is very high. So it is not surprising that the energy prices already account for more than 25% of the entire output cost. Furthermore, the energy prices are also subject to considerable changes. At a reliable estimate, a further reduction of the specific heat consumption will only be possible somewhere in the order of less than 2 %, from the process engineering point of view. Facing the challenge to combine energy efficiency and the preservation of non-renewable resources, the European cement industry decided early to utilize alternative fuels and raw materials. The word "*valorisation*" had been chosen deliberately by the cement industry to differ from refuse incineration, on the one hand, and to underline the high level of energy recovery from waste materials, on the other hand. The use of waste materials in cement factories falls within stringent regulations. However, there is still a long way for the European cement industry and its ambitious efforts to win recognition for waste utilization. One barrier is still the decision of the cement industry itself in some countries to wait and see. The second barrier has a psychological background and is based on the fact that the cement industry, like many other industries, has a position of low confidence in our today's society. Though the utilization of waste materials in the process of cement making also pays for reasons of environmental protection and from the social point of view, in addition to the pure economic benefit, the rate of substitution of traditional fossil fuels only amounts to approx. 12 % all over Europe for the time being. If an average degree of substitution of 27% would be reached in 2010, the annual CO<sub>2</sub> emissions could be reduced by 15.4 million tons.