

# COMPOSITION OF WASTES AT AN EARLY EU-LANDFILL THE TORMA IN ESTONIA

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## Abstract

Landfills represent a continuous environmental threat due to the emission of different greenhouse gases, which are the main responsible for the climate changes, and the contaminated leachate that affects the surface and ground water recipients. The circular economy approach appeared as a suggested solution to reduce the depletion of the Earth's natural resources and the environmental risky effects by considering all the lost resources like wastes including the landfills as potential secondary resources. It is well known that characterizing the landfill waste composition is an essential step in specifying the recycling methods. In the current research the waste composition at one of the early landfills following the EU regulations (the Torma in Estonia) was studied. The results showed that the fine fraction (<20 mm) represents 53% of the total excavated waste materials while the Waste to Energy fraction (plastics, woods etc.) was the highest within the coarse fraction (>20 mm). The present work highlighted that mining landfills can be a good solution either for the shortage of primary raw materials like metals or as a source for recovering energy.

## Keywords

Landfill mining, Waste composition, Characterization of landfill, Circular economy, Torma landfill