

FROM GROUNDS TO COUCH

Exploring Coffee Based Granulate in Large Scale Additive Manufacturing

Context

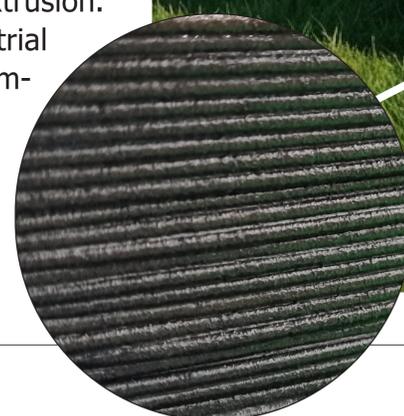
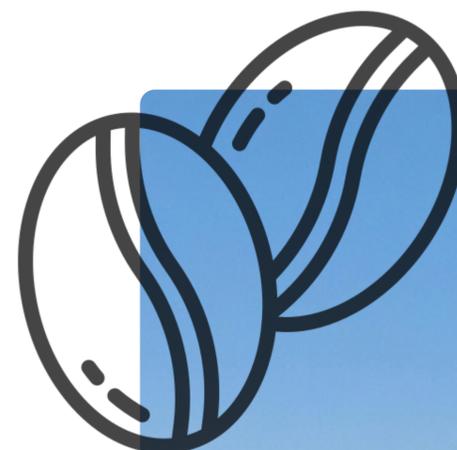
There is a growing demand for larger, circular products made from bio-waste materials, yet their application in Large Scale Additive Manufacturing remains limited due to uncertainties around material behaviour and larger prints. This project investigates whether the existing Coffee Based granulate can be processed at XL scale and translated into outdoor furniture.

Shape and sign

The Boonbank itself is a three-part modular couch, consisting of two seating areas and a planter in the middle. Just like the sign, the entire product is shaped like a coffee bean, to indirectly inform the user what a special couch they are sitting on. The sign does this directly, by providing information about the surrounding area, Het Ooievaarsfonds and the Boonbank.

The Boonbank

The Boonbank is a full-scale demonstrator printed with coffee-based granulate. It is shaped by the material's structural behaviour and the constraints of large-scale extrusion. Rather than a finished industrial product, it functions as a demonstrator of coffee-based XL 3D printing.



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3D Printing with Coffee Waste
25-02-2026
Integrated Product Design (IPD)

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