

Dynamic and acoustic performance of funicular floors

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Abstract

The construction sector is responsible for substantial greenhouse gas emissions, resource consumption, and waste generation. This requires a transition from traditional building practices to circular technologies. Funicular floors, particularly the Rippmann Floor System (RFS), a low-mass, highly efficient structural floor system developed by the the Block Research Group at ETH Zurich in over ten years of research and that have been implemented commercially and on large scale since 2023 by the ETH Spin-off VAULTED AG. This presentation summarises the static, dynamic and acoustic performance of the he 1:1 (6.5m x 6.5m) RFS mock-up for the CreaTower I project in Zug and highlights future steps in the RFS development.