

Chapter

Sustainability assessment of a novel reusable and demountable steel-concrete composite floor system

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ABSTRACT

Raw materials extraction, production of components, transportation and reverse logistics activities that run in the construction sector are constantly depleting the available global resources. Sustainability of the construction industry and its ability to adopt to the principles of circular economy is under question. This paper addresses these questions through the introduction of a novel reusable steel-concrete composite floor system. Its reuse potential is evaluated through comparative BIM-based Life Cycle Analysis with contemporary systems.