



“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

Wood Construction And Circular Building: Potential for sustainability

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Abstract

The construction industry in Brazil is characterized as having great environmental impact, consumption of materials and waste production. On the other hand, is one of the most important economic and social sectors, responsible for our built environment construction, the generation of many of jobs and the economy. Against a framework of exhaustion of raw materials, population increase, and of global warming caused by anthropogenic actions, is fundamental to develop new approaches for a suitable construction, or a new construction's paradigms. Therefore, within the scope of the Circular Economy is proposed the Design for Circularity, through the Circular Building, which is designed and developed aiming high durability, flexibility, recyclability and disassembling, using materials of sustainable origin, non-toxic, with high quality and functional performance, that can be reused unlimited times. It is about designing for the maximum performance of materials and edification without the loss of quality. Thus, the goal of this paper is to evaluate what is the wood potential as material that contributes to the Design for Circularity and Circular Building, by analyzing its intrinsic and relational properties, in the frame construction system. The article has a qualitative methodological approach, of an exploratory nature, based on the systematic literature review. The findings demonstrate that wood, through the frame construction, has high potential for Design for Circularity, contributing to a more sustainable building.

Keywords: *Circular Building, Design for Circularity, wood, frame construction, sustainability.*