

Title (en)

MODULAR COMPOSITE ACTION PANEL AND STRUCTURAL SYSTEMS USING SAME

Title (de)

MODULARE VERBUNDSTOFFAKTIONSPLATTE UND STRUKTURELLE SYSTEME, DIE DIESELBEN VERWENDEN

Title (fr)

PANNEAU D'ACTION COMPOSITE MODULAIRE ET SYSTÈMES STRUCTURELS L'UTILISANT

Publication

EP 4077826 A1 20221026 (EN)

Application

EP 21854725 A 20211230

Priority

- US 202117143543 A 20210107
- US 2021065747 W 20211230

Abstract (en)

[origin: US202213684A1] A prefabricated modular composite structural panel comprising a composite structural floor system. The structural panel comprises timber panels rigidly connected to steel stiffening elements aligned in the direction of span between supporting elements. By assembling multiple prefabricated panels in a modular array and adding concrete, a composite concrete floor system can be created which is adaptable to any building geometry. The timber panel acts in composite with the steel stiffening elements to function as formwork in the temporary condition with minimal or no shoring. In the permanent condition, the steel stiffening element is used to reinforce the concrete slab, and the timber panel can act in composite with the concrete slab to meet strength and serviceability requirements where permitted by code. Methods for connecting steel to timber components as well as methods for connecting panels to supporting beams are also disclosed. The structural panels can also be oriented vertically and tied together as required to create formwork for other building elements such as walls, columns, braces, and beams.

IPC 8 full level

E04B 5/29 (2006.01); **E04C 2/26** (2006.01)

CPC (source: EP US)

E04B 1/161 (2013.01 - US); **E04B 5/29** (2013.01 - EP); **E04B 5/40** (2013.01 - US); **E04C 2/26** (2013.01 - EP); **E04C 2/50** (2013.01 - EP); **E01D 2101/268** (2013.01 - US); **E04B 5/04** (2013.01 - US); **E04B 5/10** (2013.01 - US); **E04B 2001/2484** (2013.01 - US); **E04B 2001/2496** (2013.01 - US); **E04B 2103/02** (2013.01 - US); **E04C 2003/0491** (2013.01 - US)

Citation (search report)

See references of WO 2022150224A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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