

Title (en)  
REINFORCED THREE-DIMENSIONAL OBJECTS PRODUCED BY ADDITIVE MANUFACTURING AND RELEVANT METHOD

Title (de)  
MITTELS GENERATIVER FERTIGUNG HERGESTELLTE VERSTÄRKTE DREIDIMENSIONALE OBJEKTE UND ENTSPRECHENDE METHODE

Title (fr)  
OBJETS TRIDIMENSIONNELS RENFORCÉS PRODUITS PAR FABRICATION ADDITIVE ET PROCÉDÉ PERTINENT

Publication  
**EP 4321315 A1 20240214 (EN)**

Application  
**EP 22189481 A 20220809**

Priority  
EP 22189481 A 20220809

Abstract (en)  
A method for producing a reinforced three-dimensional object from a binder composition with an additive manufacturing process, comprising the steps of: a) Applying a first curable binder composition in the setting state with an additive manufacturing device, especially having a movable printing head, to produce the three-dimensional object (UP); b) During and/or after producing the three-dimensional object (UP), forming at least one cavity (C) for receiving a reinforcement element (RB) in the three-dimensional object (UP); c) Insertion of a reinforcing element (RB) into the at least one cavity (C); d) Casting of the reinforcing element (RB) inside the at least one cavity (C) with a second curable binder composition (SL) in the setting state which is chemically and/or physically different from the first curable binder composition.

IPC 8 full level  
**B28B 1/00** (2006.01); **B28B 23/02** (2006.01); **B28B 23/04** (2006.01)

CPC (source: EP)  
**B28B 1/001** (2013.01); **B28B 23/02** (2013.01); **B28B 23/04** (2013.01)

Citation (applicant)  
WO 2015034438 A1 20150312 - ETH SINGAPORE SEC LTD [SG], et al

Citation (search report)

- [X] AU 2019407321 A1 20210624 - ZUEBLIN AG [DE]
- [X] US 2019329447 A1 20191031 - ASPRONE DOMENICO [IT], et al
- [X] KR 101616308 B1 20160428
- [X] GB 2591831 A 20210811 - ANDREW ROBERT COWARD [DK]
- [A] KR 102375456 B1 20220318
- [X] LIM S ET AL: "Developments in construction-scale additive manufacturing processes", AUTOMATION IN CONSTRUCTION, ELSEVIER, AMSTERDAM, NL, vol. 21, 12 June 2011 (2011-06-12), pages 262 - 268, XP028113945, ISSN: 0926-5805, [retrieved on 20110617], DOI: 10.1016/J.AUTCON.2011.06.010

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

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DOCDB simple family (application)  
**EP 22189481 A 20220809**; EP 2023070711 W 20230726