

Title (en)

3D PRINTING METHOD FOR PRODUCING CONCRETE-CONTAINING SEGMENTS OF A 3D OBJECT

Title (de)

3D-DRUCKVERFAHREN ZUR HERSTELLUNG VON BETONHALTIGEN SEGMENTEN EINES 3D-GEGENSTANDES

Title (fr)

PROCÉDÉ DE FABRICATION ADDITIVE POUR LA FABRICATION DE SEGMENTS CONTENANT DU BÉTON D'UN OBJET TRIDIMENSIONNEL

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Application

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Abstract (en)

[origin: WO2020169369A1] The present invention relates to a three-dimensional (3D) printing method for the (layer-by-layer) production of at least one segment (portion) of a three-dimensional (3D) concrete-based object, the at least one segment having at least three layers and containing concrete. In the method, a first concrete layer is produced to start with by extruding fresh concrete. Subsequently, a first adhesive layer is applied to the side of the first concrete layer facing upward, and then, in turn, a second concrete layer is applied to the side of the first adhesive layer facing upward. Further adhesive and concrete layers can be successively applied as necessary, wherein the corresponding concrete layers and adhesive layers in each segment are arranged in an alternating manner one atop the other, and the top layer and the bottom layer of each concrete-containing segment are formed from a concrete layer. The present invention also relates to a segment of a 3D object as such, the segment having at least three layers and containing concrete and being produced by the method according to the invention. The invention also relates to the use of at least one segment as such, having at least three layers and containing concrete, to produce a 3D object or for integration in a 3D object. The present invention also relates to a three-dimensional (3D) object as such, containing at least one segment which has at least three layers and contains concrete and can be produced by the method according to the invention.

IPC 8 full level

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