

Title (en)
Method for on-site casting of free-form concrete structures

Title (de)
Verfahren zum Gießen von Freiform-Betonstrukturen vor Ort

Title (fr)
Procédé de moulage sur place de structures en béton en forme libre

Publication
EP 2532808 A1 20121212 (EN)

Application
EP 11004739 A 20110610

Priority
EP 11004739 A 20110610

Abstract (en)
A method for casting concrete or concrete like elements where said elements may have an amorphous shape, comprises the initial step of providing a mould, comprising a bottom surface (10') and side surfaces (20'), wherein the bottom surface (10') is an adjusted surface (10') having the curvature of the front surface of the concrete or concrete like element to be casted. Then molten wax (32) is poured into the mould. After solidification of the wax (32) a solid wax formwork element (30) has been formed, which can be mounted on a construction site into an outer load bearing support structure (40) creating a cavity of the concrete or concrete like element to be casted. After having poured fresh concrete or other concrete like material into the cavity, the concrete or other concrete like material is cured and the outer load bearing support structure (40) as well as the solid wax formwork element (30) are removed. Then the material of the solid wax formwork element (30) can be directly reused for providing molten wax (32) within the creation of a further solid wax formwork element (30).

IPC 8 full level
E04G 11/04 (2006.01); **E04G 9/10** (2006.01)

CPC (source: EP)
B28B 7/342 (2013.01); **B28B 7/346** (2013.01); **E04G 9/10** (2013.01); **E04G 11/04** (2013.01)

Citation (applicant)
• WO 2008141644 A2 20081127 - NEWTON CONCRETE APS [DK], et al
• US 4865783 A 19890912 - AHONEN HEIKKI [FI], et al
• CHRISTIAN RAUN, MATHIAS K. KRISTENSEN, POUL H. KIRKEGAARD: "Flexible Mould for Precast Concrete Elements", PROCEEDINGS OF THE INTERNATIONAL ASSOCIATION FOR SHELL AND SPATIAL STRUCTURES (IASS) SYMPOSIUM 2010, 8 November 2010 (2010-11-08)

Citation (search report)
• [Y] JP 2003211429 A 20030729 - TOYO TIRE & RUBBER CO
• [YD] US 4865783 A 19890912 - AHONEN HEIKKI [FI], et al
• [A] JP 2001105420 A 20010417 - MAEDA SEIKAN KK
• [A] US 5375809 A 19941227 - GOTO MASAHIRO [JP]
• [YD] CHRISTIAN RAUN, MATHIAS K. KRISTENSEN, POUL H. KIRKEGAARD: "Flexible Mould for Precast Concrete Elements", PROCEEDINGS OF THE INTERNATIONAL ASSOCIATION FOR SHELL AND SPATIAL STRUCTURES (IASS) SYMPOSIUM 2010, 8 November 2010 (2010-11-08), XP002663251

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DE102017121280B3; CN112814367A; DE102017129740A1; CN116735325A; WO2019148242A1; US10857678B2

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