



(11) **EP 3 059 058 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
19.10.2016 Bulletin 2016/42

(51) Int Cl.:
B28B 19/00 ^(2006.01) **B32B 13/14** ^(2006.01)
E04C 2/288 ^(2006.01)

(43) Date of publication A2:
24.08.2016 Bulletin 2016/34

(21) Application number: **16156111.3**

(22) Date of filing: **17.02.2016**

(84) Designated Contracting States:
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 States:
BA ME
Designated Validation States:
MA MD

(71) Applicant: **Ganzha, Vitalii V.**
03169 Kylv (UA)

(72) Inventor: **GANZHA, Vitalii V.**
03169 Kyiv (UA)

(74) Representative: **Jeck, Anton**
Klingengasse 2
71665 Vaihingen/Enz (DE)

(30) Priority: **18.02.2015 UA 201501381**

(54) **METHOD FOR MANUFACTURING A STRUCTURAL MODULE WITH A FACADE LAYER AND THE STRUCTURAL MODULE WITH A FACADE LAYER MANUFACTURED BY THIS METHOD**

(57) The invention relates to a construction sector, in particular, to a method of manufacturing a structural module with a heat-insulating layer and a facade layer formed thereon which performs protective and decorative functions (i.e. a module fully ready for use in the construction) and design features of the structural module, thus manufactured.

The method of manufacturing the structural module comprises formation of a bearing monolithic base followed by formation of the heat-insulating layer, the reinforcing layer and the facade layer. Firstly, the facade layer is formed by placing a layer of hydrophobic filler on the bottom of the mold, placing an adhesive mixture, the reinforcing layer, the heat-insulating layer and bearing base thereon and the adhesive mixture is then allowed to polymerize. Spreadability of the adhesive mixture is within 7 cm to 70 cm and adhesion of the adhesive mixture to

the heat-insulating layer is at least 0.5 MPa. To fix the heat-insulating layer on the bearing base, a fixing element is used with a dead end buried in the heat-insulating layer before the bearing base is formed followed by embedding an operating end of the fixing element in a layer of the bearing base.

The structural module comprises the bearing monolithic base, the heat-insulating layer, the reinforcing layer, the facade layer and the fixing element to fix the heat-insulating layer on the bearing base. The facade layer is formed by pouring a layer of the adhesive mixture onto the filler layer, and the facade layer is made so to achieve compressive strength of at least 16 MPa. A dead end of the fixing element is buried in the heat-insulating layer, while the operating end of the fixing element is embedded in the bearing base.

EP 3 059 058 A3



EUROPEAN SEARCH REPORT

Application Number
EP 16 15 6111

5

10

15

20

25

30

35

40

45

50

55

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 4 466 937 A (JOHNSTON ROY G S [GB] ET AL) 21 August 1984 (1984-08-21) * column 3, line 47 - column 6, line 60; figures *	1,10	INV. B28B19/00 B32B13/14 E04C2/288
A	CH 701 128 A1 (BEFAG BETONVORFABRIKATIONS AG [CH]) 30 November 2010 (2010-11-30) * paragraph [0011] - paragraph [0014]; claims; figures *	1,10	
			TECHNICAL FIELDS SEARCHED (IPC)
			B28B B32B E04C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 2 September 2016	Examiner Orij, Jack
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

 1
EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 16 15 6111

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-09-2016

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4466937 A	21-08-1984	DE 3275825 D1 EP 0080260 A1 US 4466937 A	30-04-1987 01-06-1983 21-08-1984
CH 701128 A1	30-11-2010	NONE	