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(54) Title: LIGHTWEIGHT STRUCTURAL CONCRETE COMPOSITION

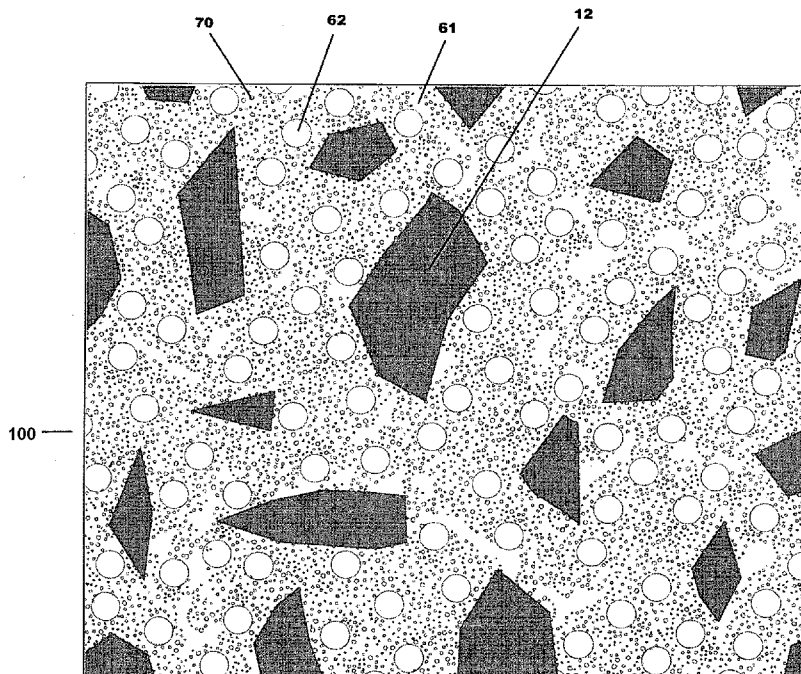


Fig. 10

(57) Abstract: A lightweight structural concrete is composed of coarse structural aggregate sized between 1/4" to 1/2" occupying 15% to 25% of total concrete volume, large non-structural lightweight aggregate such as expanded polystyrene bead of a particular size distribution and volume amount, small size non-structural lightweight aggregate or entrained air cells of another specific size distribution and volume amount, and a dense cementitious composition comprising cement binder, pozzolan, and fine structural filler no larger than concrete sand ASTM C33.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/002118**A. CLASSIFICATION OF SUBJECT MATTER***C04B 16/08(2006.01)i, C04B 22/06(2006.01)i, C04B 14/18(2006.01)i, C04B 28/04(2006.01)i, C04B 18/08(2006.01)i, C04B 16/06(2006.01)i*

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC C04B 7/02 (2006.01)i, C04B 16/08 (2006.01)i, B32B 3/00 (2006.01)i, E04C 2/06 (2006.01)i

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Utility models and applications for Utility models since 1975
Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

KOMPASS(KIPO internal) & keywords: aggregate, polystyrene bead, cement and lightweight

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3869295 A (BOWLES, ANDREW D. et al) 4 March 1975 See Claims 1 and 4	1 - 7
A	US 5725652 A (SHULMAN, DAVID M.) 10 March 1998 See Claims 1 and 21	1 - 7
A	US 2006-0147681 A1 (DUBEY, ASHISH) 6 JULY 2006 See Claims 1-2	1 - 7
A	KR 10-2006-0086005 A (ACE PANEL CO., LTD.) 31 July 2006 See Claims 1 and 3	1 - 7

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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Date of the actual completion of the international search

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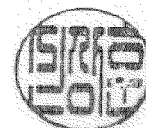
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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