

Title (en)

A masonry unit with variable physico-constructional heat insulation, and heat and moisture accumulation properties

Title (de)

Mauerwerk mit variabler physikalisch-baulicher Wärmedämmung und Wärme und Feuchtigkeitsansammlungseigenschaften

Title (fr)

Unité de maçonnerie avec isolation thermique physico-constructionnelle variable, et propriétés d'accumulation de chaleur et d'humidité

Publication

EP 2762651 A1 20140806 (EN)

Application

EP 13173542 A 20130625

Priority

LV 130017 A 20130205

Abstract (en)

The invention relates to building elements, in particular, to building masonry units with variable physico-constructional heat insulation, and heat and moisture accumulation properties. A masonry unit is proposed, containing two parts: part (A) un part (B), where part (A) contains unit outer walls (1), a number of cavities (2), adapted to be filled with heat insulating material, cavities (2) wall (3), which is perpendicular to heat flow direction and cavities (2) wall (4), which is parallel to heat flow direction; part (B) contains a number of cavities (6), adapted to be filled with phase transition material, and cavities (6) wall (5), where cross-section of cavities (2) is greater than of cavities (6) and the cavities (6) cross-sectional shape is such, that its perimeter is larger than the perimeter of the same cross-sectional area having rectangular shape.

IPC 8 full level

E04B 2/14 (2006.01); **E04B 2/18** (2006.01); **E04C 1/41** (2006.01)

CPC (source: EP)

E04B 2/18 (2013.01); **E04C 1/40** (2013.01); **E04B 2002/0208** (2013.01); **E04B 2002/0228** (2013.01); **E04B 2002/0293** (2013.01)

Citation (applicant)

- DE 3100642 A1 19811217 - WIENERBERGER BAUSTOFFIND AG [AT]
- FR 2192226 A1 19740208 - DEBROCK MARCEL [FR]
- DE 2719860 A1 19781109 - VIELBERTH JOHANN DR
- GB 2255117 A 19921028 - HEPWORTH BUILDING PROD [GB]
- DE 10058463 A1 20020529 - GEYER STEFAN [DE]
- DE 19741282 A1 19990408 - DIHA SCHNEIDER GMBH [DE]
- DE 202005000723 U1 20060524 - SCHLAGMANN BAUSTOFFWERKE GMBH [DE]
- CN 101196067 A 20080611 - UNIV NORTHWEST A&F [CN]
- C. CASTELLON: "Use of Microencapsulated Phase Change Materials in Building Applications", ASHRAE, 2007

Citation (search report)

- [XYI] DE 102009045329 A1 20110414 - GRAUL DENISE [DE]
- [XYI] DE 202007006972 U1 20070726 - UNIPOR ZIEGEL MARKETING GMBH [DE]
- [XYI] DE 20012221 U1 20001221 - NIKOL SCHALLER ZIEGELWERK GMBH [DE], et al
- [Y] CN 102535730 A 20120704 - UNIV ANHUI TECHNOLOGY
- [A] EP 0214650 A2 19870318 - MUSIL FRITZ N
- [AD] DE 3100642 A1 19811217 - WIENERBERGER BAUSTOFFIND AG [AT]

Cited by

CN104563328A; CN109990472A

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

DOCDB simple family (publication)

EP 2762651 A1 20140806; LV 14899 A 20140820; LV 14899 B 20141220

DOCDB simple family (application)

EP 13173542 A 20130625; LV 130017 A 20130205