

Search query (2): [SP]: 1. construction castable material with controllable flow or slump comprising (a) a binder comprising fly ashes comprising from 1.5 percent to 35 percent by weight of cao and a lost on ignition (loi) value from 0.5 percent to 5.5 percent by weight, representing from 10 percent to 60 percent of the binder weight and ground granulated blast furnace slag comprising from 40 percent to 70 percent by weight of cao and from 30 to 60 percent by weight of sio2, representing from 40 percent to 90 percent of the binder weight, (b) an activator comprising alkaline reagents selected from the group composed by water glass, preferably in solution with 30 to 50 percent by weight solid content, sodium metasilicates and sodium hydroxide, (c) sand, fine and coarse aggregates and (d) organic acids or conjugated salts of organic acids in a dosage from 0.001 percent to 3 percent by weight with respect to the binder. 2. construction castable material according to claim 1, wherein the binder in (a) comprises pozzolanas comprising alkali content, silica fumes, fillers, limestone, natural fibers, metallic fibers or polymeric fibers. 3. construction castable material according to claim 1, wherein said sodium metasilicates are pentahydrate sodium metasilicates. 4. construction castable material according to claim 1, wherein in (d), said organic acid is selected from the group composed by tartaric acid, aldarcic acid, citric acid, maleic acid and salicylic acid. 5. construction castable material according to claim 4, wherein in (d), said organic acid is tartaric acid. 6. construction castable material according to claim 1, wherein (d) comprises polycarboxylate ether polymers (pce). 7. construction castable material according to claim 6, wherein the concentration range of said polycarboxylate ether polymers is from 0.12 percent to 0.75 percent by weight of binder.

Results: 11

Search history

Search PN=(WO2015049010) (Results 1)

1:

Search [SP]: 1. construction castable material with controllable flow or slump comprising (a) a binder comprising fly ashes comprising from 1.5 percent to 35 percent by weight of cao and a lost on ignition (loi) value from 0.5 percent to 5.5 percent by weight, representing from 10 percent to 60 percent of the binder weight and ground granulated blast furnace slag comprising from 40 percent to 70 percent by weight of cao and from 30 to 60 percent by weight of sio2, representing from 40 percent to 90 percent of the binder weight, (b) an activator comprising alkaline reagents selected from the group composed by water glass, preferably in solution with 30 to 50 percent by weight solid content, sodium metasilicates and sodium hydroxide, (c) sand, fine and coarse aggregates and (d) organic acids or conjugated salts of organic acids in a dosage from 0.001 percent to 3 percent by weight with respect to the binder. 2. construction castable material according to claim 1, wherein the binder in (a) comprises pozzolanas comprising alkali content, silica fumes, fillers, limestone, natural fibers, metallic fibers or polymeric fibers. 3. construction castable material according to claim 1, wherein said sodium metasilicates are pentahydrate sodium metasilicates. 4. construction castable material according to claim 1, wherein in (d), said organic acid is selected from the group composed by tartaric acid, aldarcic acid, citric acid, maleic acid and salicylic acid. 5. construction castable material according to claim 4, wherein in (d), said organic acid is tartaric acid. 6. construction castable material according to claim 1, wherein (d) comprises polycarboxylate ether polymers (pce). 7. construction castable material according to claim 6, wherein the concentration range of said polycarboxylate ether polymers is from 0.12 percent to 0.75 percent by weight of binder. (Results 11)

Title: High sulphate slag cement and method for manufacturing this cement

Abstract: Source: US4328039A A cement composition containing water-granulated slag, Portland cement, an organic carboxylic acid, a high molecular weight compound and sodium sulfate.

Classifications:

International (IPC 8-9): C04B28/08 (Advanced/Invention);
C04B28/00 (Core/Invention)

International (IPC 1-7): C04B7/02

CPC: C04B28/08

European: C04B28/08

US: 106/103 106/715 106/725 106/726 106/728

Family:

Publication number	Publication date	Application number	Application date
US4328039 A	19820504	US19800138220	19800407

Priority:

US19800138220 19800407

Probable Assignee:

MASUDA YOSHITAKA

Assignee(s): (std):

MASUDA YOSHITAKA

Inventor(s): (std):

MASUDA YOSHITAKA

Title: A CONCRETE ADMIXTURE USING WASTE TAILING AND METHODE OF THEREOF

Abstract: The present invention relates to generally a concrete admixture manufactured by recycling wasted tailing and a method for manufacturing the concrete admixture, and it relates to more particularly a concrete admixture manufactured by recycling the wasted tailing which can be used as substitutional material for some amount of general cement and a method for manufacturing the concrete admixture, comprising drying the by-product, i.e. the tailing produced in the concrete manufacturing process wherein the raw ore is grounded and grounded metallic minerals are beneficiated, e.g. by floatation to collect valuable metals, extracting the tailing powder having desired range in size by pulverizing the tailing to the predetermined size and classifying the pulverized tailing powder, and mixing the extracted tailing powder to other composition. The concrete admixture according to the present invention which can be used as substitutional material for some general cement to manufacture concrete, comprises 44wt percent to 66.5wt percent of wasted tailing of a powdered form having a specific surface area of 3000cm²/g to 5000cm²/g; 10wt percent to 20wt percent of blast furnace slag of a fine powdered form having a specific surface area of 4,000 cm²/g to 8,000cm²/g; 20wt percent to 30wt percent of fly ash having a specific surface area of 3,000 cm²/g to 4,000cm²/g; 3wt percent to 5wt percent of stimulating material including at least one species selected in a group consisting of sodium hydroxide powder, anhydrous gypsum powder, sodium sulfate powder, sodium carbonate powder, aluminium sulfate powder, and sodium silicate powder; and 0.5wt percent to 1wt percent of highly efficient water-reducing material of a powdered form.

Classifications:

International (IPC 8-9): C04B18/04 C04B18/12 C04B18/14

C04B18/16 (Advanced/Invention);

C04B18/04 C04B18/12 (Advanced/Non-invention);

C04B18/04 (Core/Invention)

CPC: Y02W30/92 Y02W30/93 Y02W30/94 C04B28/02 C04B40/0028

European: C04B28/02 C04B40/00D

시멘트 배합 (wt%)						
Type	포광미	고로슬래그 미분말	플라이애시	황산 알루미늄	탄산나트륨	분말형 고형능 감수제
실시예 1	50	20	25.5	2	2	0.5

Family:

Publication number	Publication date	Application number	Application date
KR20060102756 A	20060928	KR20050024674	20050324
WO06126752 A1	20061130	WO2005KR01551	20050526

Priority:

KR20050024674 20050324

Probable Assignee: GEOCON MATERIALS INC

Assignee(s): (std): GEOCON MATERIALS INC ; MOON KYOUNG JU ; PARK CHUN HO ; PARK WON CHUN

Assignee(s): GEOCON MATERIALSINC

Inventor(s): (std): SHO YANG SEOB ; PARK WON CHUN ; PARK CHUN HO ; MOON KYOUNG JU

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Title: CONCRETE COMPOSITIONS CONTAINING GLASS POWDER WITH A PARTICLE SIZE BETWEEN 1MM AND LESS THAN 35 MICRONS

Abstract: Source: GB2425532A A concrete composition comprises a Portland cement mix, coarse and fine aggregate, water and glass powder having a particle size distribution between 1mm and less than 35 microns, with more than 30 percent being less than 45 microns and 10 percent less than 35 microns. The Portland cement mix may comprise none, one or more of: pulverised fly ash, ground granulated blast furnace slag, metakaolin, silica fume and rice husk ash. The coarse and or fine aggregates may include glass aggregates. The concrete may also include a super-plasticiser.

Classifications:

International (IPC 8-9): C04B14/22 C04B14/24 C04B28/04 (Advanced/Invention);
C04B14/02 C04B28/00 (Core/Invention)

CPC: Y02W30/92 Y02W30/94 C04B14/22 C04B14/24 C04B28/04 C04B2103/603 C04B2111/00103 C04B2111/2023

European: C04B14/22 C04B14/24 C04B28/04 M04B103/60D M04B111/00M9 M04B111/20D

Family:

Publication number	Publication date	Application number	Application date
GB200508497 A0	20050601	GB20050008497	20050427
GB200608284 A0	20060607	GB20060008284	20060427
GB2425532 A1	20061101	GB20060008284	20060427

Priority:

GB20050008497 20050427

Probable Assignee: UNIV SHEFFIELD

Assignee(s): (std): UNIV SHEFFIELD

Assignee(s): UNIVERSITY OF SHEFFIELD ; UNIVERSITY OF SHEFFIELD THE ; OF SHEFFIELD UNIV

Inventor(s): (std): BYARS EWAN ALEXANDER

Inventor(s): EWAN ALEXANDER BYARS

Abstract: Source: US2011259245A The disclosure concerns cost effective concrete formulations based on an alkali activated binder. The construction material of the concrete type, contains sand, fine aggregates, coarse aggregates, water and a binder comprising: from 55 to 80 weight percent of fly ash containing less than wt. 8 percent of CaO; from 15 to 40 weight percent of blast furnace slag; a chemical activator containing: from 0.8 to 4 weight percent of alkaline silicates; and from 1.5 to 9 weight percent of alkaline carbonates; wherein the chemical activator has an silica to alkali molar ratio from 0.1 to 0.55; and a booster comprising at least one strong base. The disclosure also concerns a method to produce such a concrete construction material.

106/DIG.1



Publication number	Publication date	Application number	Application date
CO6251308 A2	20110221	CO20100013295	20100208
DE602007036139 D1	20140522	DE200760036139T	20070817
EP2178806 A1	20100428	EP20070789651	20070817
EP2178806 B1	20140416	EP20070789651	20070817
ES2473345 T3	20140704	ES20070789651T	20070817
MX2010001886 A1	20100310	MX20100001886	20070817
US2011259245 AA	20111027	US20070673542	20070817
US8323398 BB	20121204	US20070673542	20070817
WO09024829 A1	20090226	WO20071802377	20070817

CO20100013295 20100208 EP20070789651 20070817 WO2007IB02377 20070817

Probable Assignee: CEMEX RESEARCH GROUP AG

Assignee(s): (std): CEMEX TRADEMARKS WORLDWIDE LTD ; SPERISEN THIERRY ; VASQUEZ FAVELA JAVIER ; VAZQUEZ FAVELA JAVIER ; BOLIO ARCEO HUGO ; CEMEX RES GROUP AG

Assignee(s): CEMEX RESEARCH GROUP AG

Inventor(s): (std): BOLIO ARCEO HUGO ; SPERISEN THIERRY ; VAZQUEZ FAVELA JAVIER ; VASQUEZ FAVELA JAVIER

Inventor(s): THIERRY SPERISEN ; HUGO BOLIO ARCEO ; JAVIER VAZQUEZ FAVELA

Agent(s): SILVANA MARIA LOPEZ DIAZ; BROYDE MARC; DE ELZABURU ALBERTO; HARNESS DICKEY AND PIERCE
PLC: BREDEMA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: SILICEOUS BUILDING MATERIAL MIXTURE

Abstract: Building material mixture containing at least one water glass powder, at least one water glass hardener, at least one latently hydraulic and/or pozzolanic binder, characterized by a content of a complexing agent.

Classifications:

International (IPC 8-9): C04B28/06 C04B28/22 C04B28/26 (Advanced/Invention);
C04B28/00 (Core/Invention)
CPC: Y02W30/92 Y02W30/94 Y02W30/95 C04B28/26 C04B2103/0086 C04B2103/0088 C04B2103/10 C04B2111/00482 C04B2111/56 C09D1/04
European: C04B28/26 C09D1/04 M04B103/00W26 M04B103/00W40 M04B103/10

Family:

Publication number	Publication date	Application number	Application date
DE102008033447 B3	20091126	DE200810033447	20080716
WO10006987 A1	20100121	WO2009EP58755	20090709

Priority:

DE200810033447 20080716

Probable Assignee: MALEKI HOSSEIN

Assignee(s): (std): MALEKI HOSSEIN

Inventor(s): (std): MALEKI HOSSEIN

Agent(s): HANSEN NORBERT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: GEOPOLYMER CEMENT AND USE THEROF

Abstract: Source: US2012192765A The present invention relates to a novel type of noncorrosive geopolymer cement in which said cement comprises a metakaolin or a mixture of metakaolin and non-thermally activated aluminosilicate, in a weight ratio comprised between about 40:60 and about 80:20, and an alkaline silicate solution having a molar ratio M2O:SiO₂ comprised between about 0.51 and 0.60, M representing Na or K, and to the use of a superplasticizer comprising a crosslinked acrylic acid polymer in the manufacture of geopolymer cement.

Classifications:

International (IPC 8-9): C04B103/32 C04B12/04 C04B14/10 C04B16/06 C04B18/08 C04B18/14 C04B24/24 C04B24/26 C04B28/00 C04B28/26 C08K3/34 (Advanced/Invention); C04B103/32 C04B14/10 (Advanced/Non-invention)

CPC: Y02W30/92 Y02W30/94 C04B28/006 C04B2111/00215 Y02P40/165

European: C04B28/00G M04B111/00M25

US: 106/600 106/620 106/624 106/631 106/632 106/634 524/5 524/5S

Family:

Publication number	Publication date	Application number	Application date
AU2010284901 AA	20110224	AU20100284901	20100820
AU2010284901 BB	20150226	AU20100284901	20100820
CN102596848 A	20120718	CN201080036386	20100820
EP2467349 A2	20120627	EP20100762739	20100820
FR2949227 A1	20110225	FR20090055740	20090821
FR2949227 B1	20130927	FR20090055740	20090821
JP2013502367 T2	20130124	JP20120525194T	20100820
JP5642180 B2	20141217	JP20120525194T	20100820
US2012192765 AA	20120802	US20100389936	20100820
US8444763 BB	20130521	US20100389936	20100820
WO11020975 A2	20110224	WO2010FR51746	20100820
WO11020975 A3	20110915	WO2010FR51746	20100820

Priority:

FR20090055740 20090821 WO2010FR51746 20100820

Probable Assignee: FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX INST

Assignee(s): (std): FRANCE ETAT PONTS CHAUSSEES ; HUYNH HIEU THAO ; INST FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX ; INST FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX IFSTTAR ; INST FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE LAMENAGEMENT ET DES RESEAUX

Assignee(s): INSTITUT FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX IFSTTAR ; INSTITUT FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX ; LABORATOIRE CENTRAL DES PONTS ET CHAUSSEES ; FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPOR ; FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX IFSTTAR INST ; FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS DE L AMENAGEMENT ET DES RESEAUX INST

Inventor(s): (std): HUYNH HIEU THAO ; THAO HUYNH HIEU

Inventor(s): HIEU THAO HUYNH

Agent(s): SPRUSON AND FERGUSON; NEVANT MARC; CABINET BEAU DE LOMENIE; HAMRE SCHUMANN MUELLER AND LARSON P C; HAMRE SCHUMANN MUELLER AND LARSON PC; NEVANT MARC ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: PROCESS FOR DIMINISHING THE ADSORPTIVE CAPACITY OF COAL ASH

Abstract: Source: US2013150487A Disclosed is a process for diminishing the adsorption capacity of coal ash comprising inter alia admixing a quantity of coal ash with a quantity of latex polymer, ultimately to form a cementitious mixture. The invention is useful inter alia for relieving an environmental burden of coal ash disposal and for imparting favorable properties to the cementitious mixture.

Classifications:

International (IPC 8-9): C04B14/00 C04B18/06 C04B20/02 C04B24/24 C04B28/02 C04B7/26 (Advanced/Invention); C04B111/10 (Advanced/Non-invention)

CPC: C04B20/023 C04B28/02 C04B2111/1093 C04B18/08 C04B24/2641 C04B24/2647 C04B24/383 C04B40/0028 C04B24/2623 C04B24/2676 C04B24/2688 C04B24/2682 C04B7/26 C04B14/00 Y02W30/92

US: 1/1 524/2 524/65

Family:

Publication number	Publication date	Application number	Application date
US2013150487 AA	20130613	US20120708437	20121207
US2015299039 AA	20151022	US20150696328	20150424
US9045366 BB	20150602	US20120708437	20121207
US9315418 BB	20160419	US20150696328	20150424
WO13086303 A1	20130613	WO2012US68422	20121207

Priority:

US20110568665P 20111209 US20120708437 20121207 US20150696328 20150424

Probable Assignee: BRIEN JOSHUA V

Assignee(s): (std): BRIEN JOSHUA V

Inventor(s): (std): BRIEN JOSHUA V

Agent(s): MIDDLETON; MCCLURE DAVID G JR ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: ALKALI-ACTIVATED ALUMINOSILICATE BINDER WITH SUPERIOR FREEZE-THAW STABILITY

Abstract: Source: US2015232385A We herewith propose the use of at least one nitrogen-containing organic compound and/or a salt thereof in combination with at least one aromatic carboxylic acid and/or a salt thereof for improving the freeze-thaw stability of an alkali-activated aluminosilicate binder, and a preferred alkali-activated aluminosilicate binder comprising e-caprolactam and sodium benzoate as freeze-thaw stabilizers.

Classifications:

International (IPC 8-9): C04B111/00 C04B111/20 C04B111/62 C04B111/72 C04B14/04 C04B18/14 C04B22/08 C04B24/04 C04B24/12 C04B28/02 C04B28/06 C04B28/08 C04B28/18 C04B28/22 C04B28/26 (Advanced/Invention); C04B111/00 C04B111/20 C04B111/62 C04B111/72 (Advanced/Non-invention)

CPC: C04B28/06 C04B28/08 C04B28/18 C04B2111/00146 C04B2111/00517 C04B2111/00637 C04B2111/00663 C04B2111/00672 C04B2111/00715 C04B2111/29 C04B2111/62 C04B2111/72 C04B28/26 Y02W30/92 Y02W30/94 C04B24/128 C04B24/04 C04B24/122 C04B24/121 C04B24/123 C04B28/021

US: 1/1 106/790

Family:

Publication number	Publication date	Application number	Application date
AU2013339753 AA	20140508	AU20130339753	20130926
AU2013339753 BB	20161006	AU20130339753	20130926
CA2889428 AA	20150424	CA20132889428	20130926
CN104854057 A	20150819	CN201380056756	20130926
CN104854057 B	20170901	CN201380056756	20130926
EP2914562 A1	20150909	EP20130766374	20130926
IN03016CN2015 A	20160701	IN2015CN03016	20150525
JP2015536294 T2	20151221	JP20150540079T	20130926
RU2015120460 A	20161220	RU20150120460	20130926
US2015232385 AA	20150820	US20130432624	20130926
US9242898 BB	20160126	US20130432624	20130926
WO14067721 A1	20140508	WO2013EP70076	20130926

Priority:

EP20120190780 20121031 EP20130766374 20130926 WO2013EP70076 20130926

Probable Assignee: CONSTR RES AND TECH GMBH

Assignee(s): (std): CONSTR RES AND TECH GMBH ; CONSTRUCTION RES AND TECH GMBH ; CONSTRUCTION RESEARCH AND TECHNOLOGY GMBH ; BASF SCHWEIZ AG

Assignee(s): BERALDO SAMUELE ; DAL BO ALESSANDRO ; MONTAGNER NICOLA

Inventor(s): (std): MONTAGNER NICOLA ; BERALDO SAMUELE ; ALESSANDRO DAL BO ; DAL BO ALESSANDRO

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; GOWLING LAFLEUR HENDERSON LLP; SALVATORE A; JOSEPH G; CURATOLO SIDOTI CO LPA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: HIGH-STRENGTH GEOPOLYMER COMPOSITE CELLULAR CONCRETE

Abstract: Source: US2014264140A A composite binder comprises: one or more Class F fly ash materials, one or more gelation enhancers, and one or more hardening enhancers, wherein each of the one or more Class F fly ash materials comprises 15 weight percent or less calcium oxide, and wherein the composite binder is a Portland cement-free binder for concrete. Also provided are Geopolymer Composite Cellular Concretes (GCCCs) including the composite binder and methods of making these GCCCs.

Classifications:

International (IPC 8-9): C04B18/08 C04B28/00 C04B28/02
C04B38/02 (Advanced/Invention)

CPC: C04B38/02 Y02W30/92 Y02W30/94 Y02W30/95 Y02P40/165

US: 106/673 106/675 106/676 106/679 106/706 252/62 264/54
524/8

PatBase - US2014264140_AA



Family:

Publication number	Publication date	Application number	Application date
EP2970003 A1	20160120	EP20140762280	20140310
EP2970003 A4	20161116	EP20140762280	20140310
US2014264140 AA	20140918	US20140193001	20140228
WO14141051 A1	20140918	WO2014IB59599	20140310

Priority:

US20130781885P 20130314 US20140193001 20140228 WO2014IB59599 20140310

Probable Assignee: CATHOLIC UNIV OF AMERICA

Assignee(s): (std): UNIV AMERICA CATHOLIC

Assignee(s): CATHOLIC UNIV OF AMERICA

Inventor(s): (std): GONG WEILIANG ; LUTZE WERNER ; PEGG IAN L

Agent(s): BALDER IP LAW SL; JAGTIANI AJAY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: CONSTRUCTION CASTABLE MATERIAL WITH CONTROLLABLE FLOW OR SLUMP

Abstract: Source: US2016229747A Construction castable material with controllable flow or slump comprising (a) a binder comprising fly ashes comprising from 1.5 percent to 35 percent by weight of CaO and a Lost on Ignition (LOI) value from 0.5 percent to 5.5 percent by weight, representing from 10 percent to 60 percent of the binder weight and ground granulated blast furnace slag comprising from 40 percent to 70 percent by weight of CaO and from 30 to 60 percent by weight of SiO₂, representing from 40 percent to 90 percent of the binder weight, (b) an activator comprising alkaline reagents selected from the group composed by water glass, preferably in solution with 30 to 50 percent by weight solid content, sodium metasilicates and sodium hydroxide, (c) sand, fine and coarse aggregates and (d) organic acids or conjugated salts of organic acids in a dosage from 0.001 percent to 3 percent by weight with respect to the binder.

Classifications:

International (IPC 8-9): C04B C04B111/00 C04B24/06 C04B28/00 C04B28/02 C04B28/08 C04B7/153 C04B7/24 (Advanced/Invention); C04B111/00 (Advanced/Non-invention); C04B (Subclass/Invention)

CPC: C04B7/1535 C04B28/021 Y02W30/92 Y02W30/94 Y02P40/143 Y02P40/165 C04B24/06 C04B28/006 C04B28/26 C04B2103/0082 C04B2103/308 C04B7/243 C04B28/008 C04B28/08

C04B2111/00086 C04B2111/00103 C04B2111/00146 Y02W30/97

US: 106/623

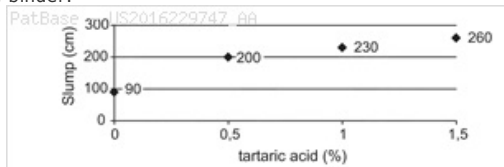


Fig. 1

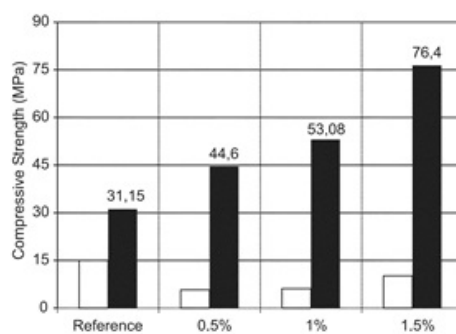


Fig. 2

Family:

Publication number	Publication date	Application number	Application date
CO16080794 A2	20161031	CO20160080794	20160401
CR20160166 A	20160603	CR20160000166	20160408
EP3052453 A1	20160810	EP20130776446	20131004
IL244577 A0	20160421	IL20130244577	20131004
MX2016004237 A1	20160624	MX20160004237	20131004
PH2016500501 A	20160613	PH20160500501	20160314
US2016229747 AA	20160811	US20130022389	20131004
WO15049010 A1	20150409	WO2013EP70662	20131004

Priority:

WO2013EP70662 20131004

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Assignee(s): CEMEX RESEARCH GROUP AG ; FOURNITURES HOSPITALIERES INDUSTRIE

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

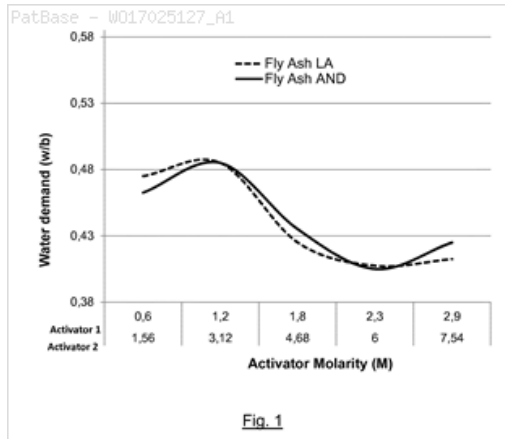
Title: FLY ASH BASED CASTABLE CONSTRUCTION MATERIAL WITH CONTROLLED FLOW AND WORKABILITY RETENTION

Abstract: A castable construction material with controlled flow and workability retention comprising (a) a binder comprising from 75 percent to 100 percent by weight of fly ashes comprising from 1.5 percent to 35 percent by weight of Ca O and a Lost on Ignition (LOI) value from 0.5 percent to 5.5 percent by weight, (b) an activator comprising an alkali hydroxide and an alkali silicate, wherein the activator is from 3 percent to 25 percent by weight with respect to the castable construction material, (c) sand, (d) fine aggregates, (e) coarse aggregates, (f) free water and (g) a workability retention agent wherein selected from the group consisting of polycarboxylate ether polymer (PCE), polyamines, polyethylene imines, polyacrylamides, polyacrylate (EO, PO) ester, polymethacrylate (EO, PO) ester, polyammonium derivatives and co-polymers thereof, polydiallyldimethylammonium chloride, benzalkonium chlorides, substituted quaternary ammonium salts, chitosans, caseins and cationically modified colloidal silica.

Classifications:

International (IPC 8-9): C04B28/00 C04B28/02 (Advanced/Invention); C04B111/00 C04B111/62 (Advanced/Non-invention)

CPC: C04B28/021 C04B28/006 C04B2111/00103 C04B2111/00146 C04B2111/62 Y02P40/165 Y02W30/92 Y02W30/94



Family:

Publication number	Publication date	Application number	Application date
WO17025127 A1	20170216	WO2015EP68366	20150810

Priority:

WO2015EP68366 20150810

Probable Assignee: CEMEX RES GROUP AG

Assignee(s): (std): CEMEX RES GROUP AG

Assignee(s): CEMEX RESEARCH GROUP AG

Inventor(s): (std): CHAPELAT JULIEN ; GUERINI ALEXANDRE ; INIGUEZ SANCHEZ CYNDY ARLENN

Agent(s): CARVAJAL Y URQUIJO ISABEL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW