

Search query (2): [SP]: 1. a concrete mix comprising sand, aggregates, binder, fibers, and various admixtures, having a consistency from concrete-slump class s2 to slump-flow class sf3, based on european standard concrete slump test, a compressive strength in the range of 30-80 mpa and a ductility represented by the following values: 30 compressive strength (fc) 80 mpa 3 flexural strength (ffl) 12 mpa 3 strength for crack mouth opening device (cmod) at 0.5 mm (frl) 12 mpa 2.5 strength for cmom at 2.5 (fr3) 15 mpa, wherein the concrete mix contains at least 390 kg of binder per m³ of the concrete mix, the concrete mix comprises a paste volume of 300-600 liters, the concrete mix contains at least two systems of fibers a and b, wherein the fibers system a comprises metallic fibers with a dosage of 25-100 kg/m³ with respect to the concrete mix and mechanical resistance of at least 1200 mpa, wherein the fibers system b comprises mono- or multifilament fibers and have a dosage of 0.2 percent -0.9 percent by volume of the concrete mix, the concrete mix contains a general admixture system that is composed of at least 2 sub-admixture systems i and ii, wherein the sub-admixture system i comprises at least 2 polycarboxylic acid co-polymers (pce) selected from the group consisting of a water reducer pce and a workability retention pce, wherein the sub-admixture system ii is a stabilizer selected from the group consisting of modified cellulose, carboxymethyl cellulose, hydroxyethyl cellulose, hydroxypropyl methyl cellulose, natural starch, modified starch, branched modified starch, natural gums, xanthan gum, silica, colloidal silica, silica fume and any combination thereof. 2. concrete mix according to claim 1, further comprising coarse aggregates. 3. concrete mix according to claim 1, wherein the fibers of fibers system a have a length of 35-100 mm. 4. concrete mix according to claim 1 wherein the fibers system b comprises 65-90 percent in volume of metallic fibers. 5. concrete mix according to claim 4, wherein the metallic fibers have a length of 5-35 mm. 6. concrete mix according to claim 1 wherein a dosing of the sub-admixture system i is of 0.5-5 percent weight percent with respect to the binder content and the dosing of the sub-admixture system ii is of 0.1-2 percent weight percent with respect to the binder. 7. concrete mix according to claim 1 wherein a dosing of the sub-admixture system i is of 0.1-1 percent weight percent with respect to the binder content and the dosing of the sub-admixture system ii is of 0.1-0.5 percent weight percent with respect to the binder. 8. concrete mix according to claim 1 wherein the concrete mix comprises a sub-admixture system iii, wherein the sub-admixture system iii is selected from the group consisting of cellulose microfibers, synthetic waxes, natural waxes, superabsorbing polymers, starch crosslinked polymers, acrylate crosslinked polymers, hexylene glycol (2-methyl-2,4-pentanediol) and any combination thereof and the dosage of the sub-admixture system iii is of 0.3-6 percent weight percent with respect to the binder. 9. concrete mix according to claim 1 wherein fibers system c, comprising synthetic fibers, is added to the concrete mix. 10. concrete mix according to claim 9, wherein a dosage of fibers system c is of 0.02 percent to 2 percent volume with respect to the concrete.

Results: 8

1) Family number: 49717006 (CN102206068A)

© PatBase

Title: SHOCK-RESISTANCE CARBON FIBER ASSORTED FIBER CONCRETE

Abstract: The invention relates to shock-resistance carbon fiber assorted fiber concrete in the technical field of building engineering. The concrete comprises the following components in percentage by volume: 98.6 percent -99.5 percent of concrete, 0.3-1.0 percent of wire type steel fiber, 0.1-0.3 percent of carbon fiber and 0.1 percent of polypropylene fiber. The concrete in the invention has the advantages that not only can the toughness, tensile strength and rupture strength be enhanced, but also the shock resistance, fireproofing and antiknock properties and the like can be obviously improved.

Classifications:**International (IPC 8-9):** C04B16/06 C04B28/04 (Advanced/Invention)**CPC:** C04B28/02**Family:**

Publication number	Publication date	Application number	Application date
 CN102206068 A	201111005	CN2011110095799	20110415

Priority:

CN2011110095799 20110415

Probable Assignee: UNIV SHANGHAI JIAOTONG**Assignee(s):** (std): SHANGHAI JIAO TONG UNIV ; UNIV SHANGHAI JIAOTONG**Assignee(s):** SHANGHAI JIAOTONG UNIV ; SHANGHAI JIAOTONG UNIVERSITY**Inventor(s):** (std): ZHEN HUANG ; CHANG ZHANG ; BINCHAO FENG ; FAN LENG ; XIANDONG WANG**Inventor(s):** WANG XIANDONG ; LENG FAN ; HUANG ZHEN ; ZHANG CHANG ; FENG BINCHAO**2) Family number: 53301108** (CN102976697B)

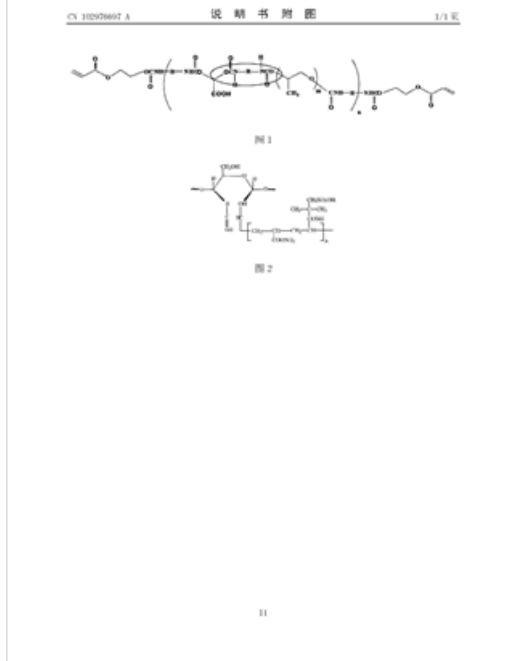
© PatBase

Title: HIGH-DUCTILITY LOW-SHRINKAGE ANTI-CRACKING CONCRETE FOR BRIDGE DECK PAVEMENT AND PREPARATION METHOD THEREOF

Abstract: The invention belongs to the field of concrete structural materials, and discloses a preparation method for high-ductility low-shrinkage anti-cracking concrete for bridge deck pavement. The high-ductility low-shrinkage anti-cracking concrete for bridge deck pavement is characterized by comprising the following components in proportion: 135-155 kg/m³ of water, a cementing material, 600-800 kg/m³ of fine aggregate, 950-1150 kg/m³ of coarse aggregate, 2.0-3.0 kg/m³ of shrinkage-reducing ductility-increasing component, 10-20 kg/m³ of internal curing agent, 3.0-5.0 kg/m³ of water reducing agent and hybrid fiber, wherein the cementing material comprises 320-380 kg/m³ of cement and 20-40 kg/m³ of coal ash in proportion; and the hybrid fiber comprises 0.8-1.0 kg/m³ of organic polymer fiber and 40-50 kg/m³ of steel fiber in proportion. According to the concrete and the preparation method for the concrete disclosed by the invention, reinforcement meshes on the bridge deck pavement layer can be cancelled.

Classifications:**International (IPC 8-9):** C04B16/06 C04B24/38 C04B24/40

C04B28/04 (Advanced/Invention)

**Family:**

Publication number	Publication date	Application number	Application date
CN102976697 A	20130320	CN201210566338	20121224
CN102976697 B	20140702	CN201210566338	20121224

Priority:

CN201210566338 20121224

Probable Assignee: UNIV WUHAN TECH**Assignee(s):** (std): UNIV WUHAN TECH ; WUHAN UNIV OF TECHNOLOGY**Inventor(s):** (std): DING QINGJUN ; FAN BIKUN ; HU SHUGUANG ; HUANG SHAOLONG ; HUANG XIULIN ; KONG DEDONG ; LIANG JIAN ; MOU TINGMIN ; SHEN FAN ; WANG FAZHOU ; YANG KUN**3) Family number: 48843128 (US2012021206A)**

© PatBase

Title: COMPOSITE CONCRETE FOR FLOOR SLABS AND RAFTS

Abstract: The invention is in the field of construction and can be used for constructing industrial floors and foundation slabs. The offered composite concrete mixture, comprising cement, sand-stone mixture, water, plasticizer, nano-size pozzolans, shrinkage reducing additive, and steel and/or synthetic fibers, allows the construction of thin, completely jointless without limitation of area, large composite concrete slabs, with no observable shrinkage cracks or curling.

Classifications:

International (IPC 8-9): B32B5/16 C04B C04B103/30 C04B103/56 C04B11/34 C04B11/34 C04B11/60 C04B14/00 C04B14/36 C04B14/38 C04B14/48 C04B16/00 C04B16/06 C04B22/00 C04B22/06 C04B22/14 C04B24/00 C04B24/02 C04B24/18 C04B24/22 C04B24/26 C04B24/30 C04B28/00 C04B28/02 C04B28/04 C04B28/12 E04B5/32 E04C5/07 E04F15/12 (Advanced/Invention); C04B103/30 C04B103/56 C04B11/34 C04B11/60 (Advanced/Non-invention); C04B28/00 (Core/Invention); C04B (Subclass/Invention)

International (IPC 1-7): E04F15/12

CPC: C04B2103/30 C04B22/008 C04B14/06 C04B14/48 C04B20/008 C04B24/02 C04B24/22 C04B2103/0088 C04B22/064 C04B24/2647 C04B7/32 C04B28/02 C04B2103/58 C04B2111/34 C04B2111/60 C04B28/04

European: C04B22/00L C04B28/02 C04B28/04 M04B103/30 M04B103/58 M04B11/34 M04B11/60

US: 1/1 106/638 106/638S 106/644 106/644S 106/792 106/792S 106/802 106/802S 428/323 428/323P

Family:

Publication number	Publication date	Application number	Application date
AU2010313886 AA	20110505	AU20100313886	20101020
AU2010313886 BB	20130502	AU20100313886	20101020
CA2780090 AA	20110505	CA20102780090	20101020
CA2780090 C	20141223	CA20102780090	20101020
CN102666427 A	20120912	CN201080058318	20101020
CN102666427 B	20150415	CN201080058318	20101020
DE602010017553 D1	20140828	DE201060017553T	20101020
DK2493834 T3	20140929	DK20100774014T	20101020
EA020904 B1	20150227	EA20120000567	20101020
EA201200567 A1	20130329	EA20120000567	20101020
EP2493834 A2	20120905	EP20100774014	20101020
EP2493834 B1	20140716	EP20100774014	20101020
ES2499691 T3	20140929	ES20100774014T	20101020
HR20140848 T1	20141024	HR20140000848	20140908
IL215001 A0	20111201	IL20100215001	20101020
IL215001 A1	20151231	IL20100215001	20101020
IN06962DN2011 A	20130920	IN2011DN06962	20110912

IN290551 B	20171215	IN2011DN06962	20110912
JP2013508261 T2	20130307	JP20120536724T	20101020
JP2015110514 A2	20150618	JP20140244879	20141203
KR101368556 B1	20140227	KR20127013447	20101020
KR20120074320 A	20120705	KR20127013447	20101020
LV14122 A	20100320	LV20090000186	20091026
LV14122 B	20100420	LV20090000186	20091026
PT2493834 T	20141006	PT20100774014T	20101020
RS53525 B	20150227	RS20140000471	20101020
RS53525 B1	20150227	RS20140000471	20101020
SI2493834 T1	20141231	SI20100030719T	20101020
UA101923 C2	20130513	UA20120006349	20101020
US2012021206 AA	20120126	US20100262108	20101020
US9284225 BB	20160315	US20100262108	20101020
WO11053103 A2	20110505	WO2010LV00014	20101020
WO11053103 A3	20110623	WO2010LV00014	20101020
ZA201203212 A	20121227	ZA20120003212	20120504

Priority:

LV20090000186 20091026 EP20100774014 20101020 JP20120536724 20101020
WO2010LV00014 20101020 JP20120536724T 20101020 JP20140244879 20141203

Probable Assignee: PRIMEKSS NORTH AMERICA LLC

Assignee(s): (std): JANIS OSLEJS ; KRAVALIS KASPARS ; OSLEJS JANIS ; PRIMETEH AS ; PRIMETEH A ; PRIMEKSS
RABINE NORTH AMERICA LLC ; PRIMETEH A C ; PRIMETEH SIA

Assignee(s): PRIMEKSS NORTH AMERICA LLC ; PRIMETEH A SSMERLA IELA 3LV-1006RIGALV ; PRIMEKSS GROUP
SIA ; PRIMETEH A S ; O LEJS J NIS

Inventor(s): (std): OSLEJS JANIS ; KRAVALIS KASPARS ; KASPARS KRAVALIS ; JANIS OSLEJS

Inventor(s): KRAVALIS KASPARSLV ; OSLEJS JANISLV ; O LEJS J NIS

Agent(s): ADAMS PLUCK; CAMERON IP; FORTUNA JEVGENIJS; URIZAR JOSE ANTONIO; EITAN MEHULAL AND
SADOT; KITANO TAKESHI; MATSUTOYA YUKO; OHNO SEIJI; TANAKA REIKO; MORITA KOJI; OSHA
LIANG LLP

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

4) Family number: 44920389 (KR100940550B)

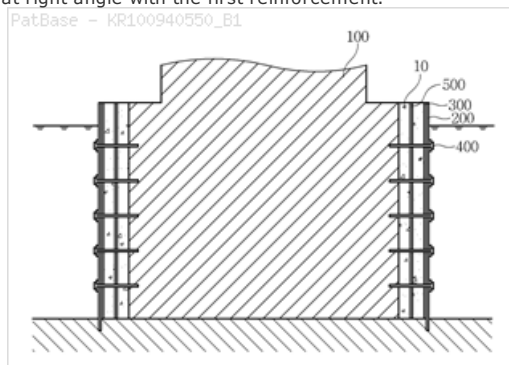
© PatBase

Title: REINFORCING CONCRETE STRUCTURE AND METHOD USING HYBRID FIBER COMPOSITE

Abstract: PURPOSE: A reinforcing concrete structure which improves safety of a bridge and a method using a hybrid fiber composite are provided to increase the service life and the service life of the bridge by preventing the corrosion of the concrete structure. CONSTITUTION: A plurality of pillars(200) is established on the main surface of a concrete structure(100). The pillar is fixed on the concrete structure using a main anchor. A hybrid fiber reinforcing material(300) is established between the pillars. A mortar(10) is charged between the concrete structure and the hybrid fiber reinforcing material. The hybrid fiber reinforcing material comprises a first reinforcement unit and a second reinforcement unit. The second reinforcement unit is woven in a row in the direction meeting at right angle with the first reinforcement.

Classifications:

International (IPC 8-9): E01D19/02 E01D22/00
E02D37/00 (Advanced/Invention);
E01D19/02 E01D22/00 E02D37/00 (Advanced/Non-invention);
E01D19/02 E01D22/00 E02D37/00 (Core/Invention)
CPC: E01D22/00 E01D19/02 E02D37/00



Family:

Publication number	Publication date	Application number	Application date
KR100940550 B1	20100210	KR20090050542	20090608

Priority:

KR20090050542 20090608

Probable Assignee: ORE CONSTRUCTION CO LTD

Assignee(s): (std): CARECON CO LTD ; ORE CONSTRUCTION CO LTD

Assignee(s): CARECON CO ; ORE CONSTRUCTION CO

Inventor(s): (std): LEE CHIN YONG

5) Family number: 64382398 (US2018111876A)

© PatBase

Title: ADVANCED FIBER REINFORCED CONCRETE MIX DESIGNS AND ADMIXTURES SYSTEMS

Abstract: A concrete mix having sand, fine aggregates, binder, fibers, and various admixtures is provided. The mix has a consistency from S2 to SF3, a compressive strength in the range of 30-80 MPa and a ductility represented by f_c , f_{fl} , f_{R1} and f_{R3} values, wherein the concrete mix contains at least 390 Kg of binder, the concrete mix has a paste volume of 300-600 liters, the concrete mix contains at least two systems of fibers and a general admixture system that is composed of at least 2 sub-admixture systems.

Classifications:

International (IPC 8-9): C04B C04B14/04 C04B14/06 C04B14/38 C04B14/42 C04B14/48 C04B16/06 C04B28/00

C04B28/04 (Advanced/Invention);
C04B111/34 (Advanced/Non-invention);
C04B (Subclass/Invention)

International (IPC 1-7): C04B28/00 C04B28/04

CPC: C04B16/0691 C04B14/06 C04B14/04 C04B14/42 C04B14/38 C04B16/0633 C04B14/48 C04B28/04 C04B2201/50 C04B2111/34 C04B16/0625 C04B14/062 C04B16/0683 C04B24/2664 C04B24/38 C04B24/383 C04B14/4668 C04B18/08 C04B18/146 Y02W30/92 Y02W30/94

US: 106/644 106/713

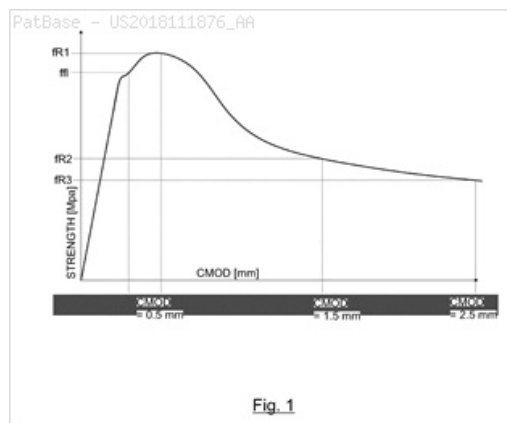


Fig. 1

Family:

Publication number	Publication date	Application number	Application date
BR112017025418 A2	20180807	BR20171125418	20160610
BR112017026256 A2	20180911	BR20171126256	20160610
CO20170012578 A2	20180228	CO20170012578	20171206
CO20170012589 A2	20180228	CO20170012589	20171206
CR20170560 A	20180724	CR20170000560	20160610
CR20170561 A	20180724	CR20170000561	20150610
EP3307690 A1	20180418	EP20150728838	20150611
EP3307691 A1	20180418	EP20160732507	20160610
EP3307692 A1	20180418	EP20160732511	20160610
IL255597 A0	20180131	IL20160255597	20160610
IL255598 A0	20180131	IL20160255598	20160610
MX2017015570 A1	20180426	MX20170015570	20160610
MX2017015680 A1	20180418	MX20170015680	20160610
US2018111876 AA	20180426	US20160573389	20160610
US2018134620 AA	20180517	US20160573391	20160610
US2018141867 AA	20180524	US20150573678	20150611
US10259747 BB	20190416	US20160573389	20160610
WO16198108 A1	20161215	WO2015EP63045	20150611
WO16198603 A1	20161215	WO2016EP63302	20160610
WO16198608 A1	20161215	WO2016EP63312	20160610

Priority:

WO2015EP63045 20150611 WO2016EP63302 20160610 WO2016EP63312 20160610

Probable Assignee: CEMEX RES GROUP AG

Assignee(s): (std): ESSER JEREMY ; ZAMPINI DAVIDE ; GUERINI ALEXANDRE ; VOLPATTI GIOVANNI ; CEMEX RES GROUP AG

Assignee(s): CEMEX RESEARCH GROUP AG

Inventor(s): (std): VOLPATTI GIOVANNI ; ZAMPINI DAVIDE ; GUERINI ALEXANDRE ; DAVIDE ZAMPINI ; ALEXANDRE GUERINI ; GIOVANNI VOLPATTI ; JEREMY ESSER ; ESSER JEREMY

Agent(s): CAROLINA MERCEDES DAZA MONTALVO; CARVAJAL Y URQUIJO ISABEL; LUCAS AND MERCANTI LLP; 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 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

6) Family number: 30580719 (US2003150364A)

© PatBase

Title: FIRE-RESISTANT HIGH PERFORMANCE CONCRETE COMPOSITION

Abstract: The invention concerns the use of organic fibres having a melting point lower than 300 degrees centigrade, an average length l more than 1 mm and a diameter ϕ not more than 200 μ m, in ultra high performance concrete for improving the concrete fire resistance, the amount of organic fibres being such that their volume ranges between 0.1 and 3 percent of the concrete volume after setting and the concrete having a compressive strength at 28 days of at least 120 MPa, a bending strength of at least 20 MPa, and a spread value in non-hardened state of at least 150 mm, the values being for a concrete preserved at 20 degrees centigrade, the concrete consisting of a particularly hardened cement matrix wherein metal fibres are dispersed.

Classifications:

International (IPC 8-9): C04B C04B111/28 C04B14/04 C04B14/06 C04B14/20 C04B14/38 C04B14/46 C04B14/48 C04B16/00 C04B16/06 C04B18/14 C04B20/00 C04B28/00

C04B28/02 (Advanced/Invention);
C04B111/28 C04B14/06 C04B14/20 C04B14/46 C04B14/48 C04B16/06 C04B18/14 C04B28/00 C04B28/02 (Advanced/Non-invention);
C04B16/00 C04B28/00 (Core/Invention)

International (IPC 1-7): C04B111/28 C04B14/04 C04B14/06 C04B14/20 C04B14/38 C04B14/46 C04B14/48 C04B16/00

C04B18/02 C04B18/14 C04B20/00 C04B24/00 C04B28/00
C04B28/02
CPC: C04B28/02 C04B2111/28 C04B2201/52 Y02W30/94
European: C04B28/02 M04B111/28 M04B201/52
US: 106/640 106/643 106/644 106/644S 106/708 106/708S 106/724
106/724S 106/725 106/725S 106/802 252/601

PatBase - NZ520633_A

END

Family:

Publication number	Publication date	Application number	Application date
AT275112 E	20040915	AT20010907735T	20010208
AU2001235632 AA	20010820	AU20010235632	20010208
AU2001235632 BB	20050512	AU20010235632	20010208
AU200135632 A1	20010820	AU20010035632	20010208
AU200135632 A5	20010820	AU20010035632	20010208
BRPI0108266 A	20030305	BR2001PI08266	20010208
BRPI0108266 B1	20111227	BR2001PI08266	20010208
CA2399767 AA	20020809	CA20012399767	20010208
CA2399767 C	20100629	CA20012399767	20010208
CN1226225 C	20051109	CN20018004793	20010208
CN1398242 A	20030219	CN20018004793	20010208
CZ303809 B6	20130515	CZ20020002670	20010208
DE60105269 D1	20041007	DE20016005269	20010208
DE60105269 D1	20041007	DE20016005269T	20010208
DE60105269 T2	20050915	DE20016005269T	20010208
DE60105269 T3	20130328	DE20016005269T	20010208
DK1263690 T3	20050110	DK20010907735T	20010208
DK1263690 T4	20130107	DK20010907735T	20010208
EP1263690 A1	20021211	EP20010907735	20010208
EP1263690 B1	20040901	EP20010907735	20010208
EP1263690 B2	20120912	EP20010907735	20010208
ES2225484 T3	20050316	ES20010907735T	20010208
ES2225484 T5	20130205	ES20010907735T	20010208
FR2804952 A1	20010817	FR20000001742	20000211
FR2804952 B1	20020726	FR20000001742	20000211
HK1048296 A1	20050630	HK20030100527	20030122
HK1048296 B	20050630	HK20030100527	20030122
HU0303088 AB	20040728	HU20030003088	20010208
HU225006 B1	20060529	HU20030003088	20010208
IN203101 B	20070413	IN2002MN01063	20020806
JP2004508256 T2	20040318	JP20010558381T	20010208
JP4768950 B2	20110907	JP20010558381T	20010208
KR100728175 B1	20070613	KR20027010363	20010208
KR20030007417 A	20030123	KR20027010363	20010208
MX235550 B	20060406	MX2002PA07566	20010208
MXPA02007566 A1	20040823	MX2002PA07566	20010208
NZ520633 A	20050826	NZ20010520633	20010208
PL202841 B1	20090731	PL20010357442	20010208
PL357442 A1	20040726	PL20010357442	20010208
PT1263690 T	20050131	PT20010907735T	20010208
RU2002124130 A	20040220	RU20020124130	20010208
RU2274618 C2	20060420	RU20020124130	20010208
SI1263690 T1	20050228	SI20010030216T	20010208
SI1263690 T2	20130228	SI20010030216T	20010208
SK200201138 A5	20030911	SK20020001138	20010208
SK288156 B6	20140108	SK20020001138	20010208
UA82044 C2	20080311	UA20020806637	20010208
US2003150364 AA	20030814	US20030203378	20030220
US6881256 BB	20050419	US20030203378	20030220
WO0158826 A1	20010816	WO2001FR00369	20010208
ZA200206194 A	20031219	ZA20020006194	20020802

Priority:

FR20000001742 20000211 WO2001FR00369 20010208 DE20016005269T 20010208 EP20010907735 20010208
WO2001FR00369 20010208

Probable Assignee: BOUYGUES TRAVAUX PUBLICS**Assignee(s):** (std): BEHLOUL MOULOUD ; BOUYGUES TRAVAUX PUBLICS ; BOUYGUES TRAVAUX PUBLICS SAINT ; CASANOVA ANDRE ; RHONE POULENC CHIMIE ; LAFARGE PARIS ; ORANGE GILLES ; PRAT EVELYNE ; RHODIA CHIMIE SA ; LAFARGE SA**Assignee(s):** RHODIA CHIMIE BOULOGNE BILLANCOURT ; N A ; RHODIA CHIMIE 26 QUAI ALPHONSE LE GALLO F 92512 BOULOGNE BILLANCOURT CEDEX ; LAFARGEHOLCIM LTD ; HOLCIM TECHNOLOGY LTD ; CASANOVA PASCAL ANDRE ; LAFARGE ; CASANOVA PASCAL ; RHODIA CHIMIE ; BOUYGUES TRAVAUX PUBLICS SAINT QUENTIN EN YVELINES**Inventor(s):** (std): BELUL MULU ; EVELYNE PRAT ; KAZANOVA ANDRE ; MOULOUD BEHLOUL ; ORANZH ZHIL ; PASCAL CASANOVA ANDRE ; PRA EHVELIN ; PRAT EVELYNE ; PRAT E ; ORGANE G ; ORANGE GILLES ; CASANOVA PASCAL ANDRE ; CASANOVA PASCAL ; CASANOVA P A ; CASANOVA G ORGANE E PRAT P A ; CASANOVA ANDRE PASCAL ; CASANOVA ANDRE ; BEHLOUL MOULOUD ; CASANOVA ANDRU**Inventor(s):** ANDRE PASCAL CASANOVA ; ANDRE CASANOVA ; GILLES ORANGE AND OTHERS ; GILLES ORANGE ; G ORGANE E PRAT P A CASANOVA ; G ORGANE ; E PRAT ; P A CASANOVA ; ORANZH ZHIL' ; PA CASANOVA ; G ORGANE E PRAT PA CASANOVA ; BELUL' MULU**Agent(s):** WATERMARK INTELLECTUAL PROPERTY PTY LTD; WATERMARK PATENT AND TRADE MARKS ATTORNEYS; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; POCHART FRANCOIS; DE ELZABURU ALBERTO; ZHONGZI IP ROOM 1204 12 F SHANGHAI IND INVESTMENT BLDG 48 62 HENNESSY ROAD; YOUNG AND THOMPSON**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW**7) Family number: 49105922 (CN102092996A)**

© PatBase

Title: CEMENT-BASED COMPOSITE MATERIAL WITH HIGH-TEMPERATURE RESISTANCE AND SUPERHIGH PERFORMANCE AND PREPARATION METHOD THEREOF

Abstract: The invention discloses a cement-based composite material with high-temperature resistance and superhigh performance and a preparation method thereof. The cement-based composite material comprises the raw materials of a gelled material, an aggregate, fibers, a water reducing agent and water, wherein the gelled material is a mixture of cement and active mineral admixture, the aggregate is yellow sand or a mixture of yellow sand and pebbles, and the fibers are organic fibers or mixtures of organic fibers and metal fibers. The cement-based composite material is produced through improvement on the basis of common concrete manufacturing, has the properties of superhigh mechanical property and high-temperature resistance, is applicable to high-temperature resistant engineering structures, and is favorable for preventing the collapse and the destruction of the construction structures in a fire disaster.

Classifications:**International (IPC 8-9):** C04B16/06 C04B28/00

C04B28/08 (Advanced/Invention)

CPC: C04B28/02 Y02W30/92 Y02W30/94

PatBase - CN102092996_A

CN 102092996 A 说明书附图 1/9页



图1



图2



图3

9

Family:

Publication number	Publication date	Application number	Application date
CN102092996 A	20110615	CN201010565136	20101130

Priority:

CN201010565136 20101130

Probable Assignee: UNIV NANJING SCIENCE AND TECH**Assignee(s):** (std): NANJING UNIV OF SCIENCE AND TECHNOLOGY ; UNIV NANJING SCIENCE AND TECH**Assignee(s):** NANJING UNIVERSITY OF SCIENCE AND TECHNOLOGY**Inventor(s):** (std): JIANZHONG LAI ; SHENG XU ; CHUNMEI YANG ; PEIPEI LI ; SHIHUA ZHANG**Inventor(s):** YANG CHUNMEI ; ZHANG SHIHUA ; XU SHENG ; LAI JIANZHONG ; LI PEIPEI

Title: ULTRA-HIGH STRENGTH STEEL FIBRE REINFORCED CONCRETE

Abstract: Ultra-high strength steel fibre reinforced concrete with cement matrix contains silica cement, basalt aggregate, steel fibres, admixtures and additives. The dosage of admixtures is given by the results of the porosity tests of basalt aggregate and steel fibres mixture. The admixtures are dosed so that the required workability is reached; according to real application. There is 600 to 1000 kg/m³ of silica cement in cement matrix, basalt aggregate has three sieve sizes, namely 0-4, 4-8 and 8-16, the total dose of basalt aggregate is in the range 1500 and 2000 kg/m³. Ratio of sieve sizes is determined by granulometry and mineralogical composition of particular source of basalt aggregate. Water/cement ratio ranges between 0.16 and 0.25. Two types of steel fibres are evenly distributed in the volume of hardened steel fibre reinforced concrete. The first type of fibres has rectangular section with width ranging between 0.2 and 0.5 mm, height between 1.5 and 2.0 mm and length between 25 and 35 mm with strength between 350 and 450 MPa. The second type of steel fibres has circular section with diameter ranging between 0.08 and 0.12 mm, their length ranges between 8 and 15 mm and their strength is higher than 2000 MPa. The total weight of both types of fibres ranges between 100 and 280 kg/m³.

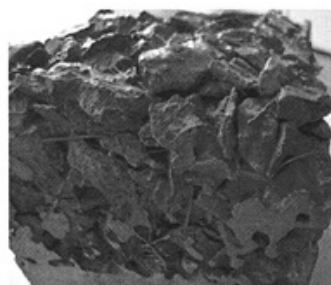
Classifications:

International (IPC 8-9): C04B14/00 C04B14/02 C04B14/38
C04B14/48 C04B18/00 C04B28/02 C04B32/02 (Advanced/Invention)
CPC: C04B28/02 C04B2201/52

PatBase - SK288599_B6



Obrázek 1



Obrázek 2

Family:

Publication number	Publication date	Application number	Application date
CZ20120903 A3	20140521	CZ20120000903	20121217
CZ304478 B6	20140521	CZ20120000903	20121217
DE112013006042 T5	20151119	DE201311006042T	20131205
SK201550010 A5	20150804	SK20150050010	20131205
SK288599 B6	20181001	SK20150050010	20131205
WO14094692 A1	20140626	WO2013CZ00161	20131205
WO14094692 A4	20140828	WO2013CZ00161	20131205

Priority:

CZ20120000903 20121217 WO2013CZ00161 20131205

Probable Assignee: CCARON ESKE VYSOKE UCENI TECHNICKE V PRAZE FAKULTA STAVEBNI

Assignee(s): (std): CCARON ESKE VYSOKE UCENI TECHNICKE V PRAZE FAKULTA STAVEBNI ; CESKE VUT V PRAZE FAKULTA STAVEBNI ; CZECH TECHNICAL UNIV IN PRAGUE

Assignee(s): CESKE VYSOKE UCENI TECHNICKE V PRAZE FAKULTA STAVEBNI

Inventor(s): (std): VODICKA JAN ; FLADR JOSEF ; BROUKALOVA IVA ; KOHOUTKOVA ALENA

Agent(s): DUŠKOVA HANA

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