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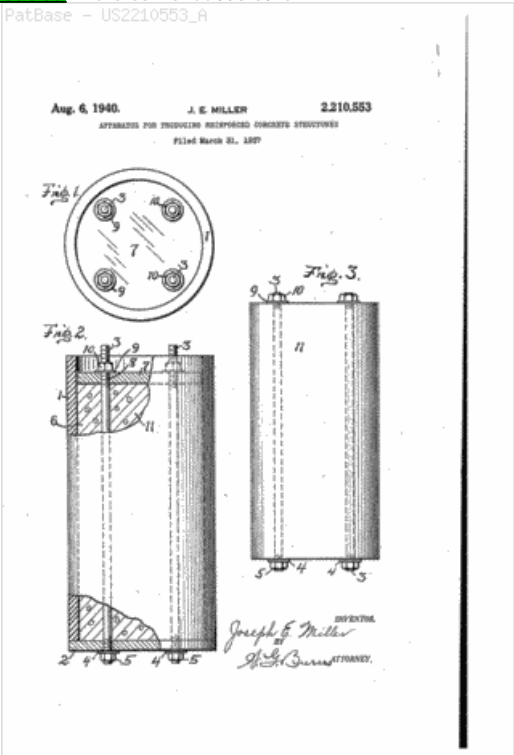
Search 1: SFT=(gypsum and ((fiber w1 glass) or fiberglass) and layer*) (Results 5017)
Search 2: 1 and pd<20140617 (Results 4126)
Search 3: 2 and (calcium w2 sulfate) (Results 902)
Search 4: 3 and (embed* or penetrat* or encrust*) (Results 473)

Title: APPARATUS FOR PRODUCING REINFORCED CONCRETE STRUCTURES

Abstract: 1. A fibrous niat-laced cementitious article comprising: (a) a cementitious core. (b) a first Hbro us mat comprising polymer or mineral fibers. the mat having at least a first surface facing the cementitious core. (c) a hydrophobic film having a thickness of at least about pm disposed on at least thc first surface the mat, the film comprising talc, wax. a hydrophobic resin. a silicone-based compound. a fatty acid or salt thereof, polyethylene glycol, a hydrocarbon or fluorocarbon surfactant having 12 or more carbon atoms. or a combination thereof wherein: (i) the hydrophobic film is in contact Will] the cementitious core. and (ii) the first Hbrous mat bearing the hydrophobic film adheres to the cementitious core such that no greater than about 50% ofthe thickness ofthe first fibrous mat is **Embedded** in the cernentitious core.

Classifications:

International (IPC 8-9): B28B23/04 E04G21/12 (Advanced/Invention);
B28B23/02 E04G21/12 (Core/Invention)
International (IPC 1-7): B28B23/02 E04G21/12 E04H12/28
CPC: B28B23/04 E04G21/12
European: B28B23/04 E04G21/12
US: 264/228 264/275 425/111 425/123 52/223.1 52/721.4



Family:

Publication number	Publication date	Application number	Application date
US2210553 A	19400806	US19370133972	19370331

Priority:

US19370133972 19370331

Probable Assignee: MILLER JOSEPH E
Assignee(s): (std): MILLER JOSEPH E
Inventor(s): (std): MILLER JOSEPH E

Title: SHEET METAL COMPOSITION MATERIAL

Abstract: (Claim 1) 1. A laminated article of manufacture compnsing a self-stipporting sheet of asphalt-impregnated. fibrous material and a metallic sheet adhered thereto by a mixture of a bonding agent comprising 25 to 100 parts by weight of a polysulfide polymer which is a mobile liqtiid at 25' C., having a moleculax weight of 500 to 12,000 and having the following structure: HS-(C2He-O-CH2-0-C2H4- S-S)m-C2H4-0-CH.9-0-C2H4-SH wherein m repiesents a positive integer of from 3 to 23, 25 to 100 parts by weight of a glycidyl polyether of a polyhydric phenol having an epoxy equivalent of froin 140 to

Classifications:

International (ipc 8-9): B32B15/08 C08L63/02 C09J181/04 (Advanced/Invention);

B32B15/08 C08L63/00 C09J181/00 (Core/Invention)

International (ipc 1-7): B05D7/14

CPC: C09J181/04 B32B15/08 C08L63/00 Y10T428/24446 Y10T428/24612 Y10T428/24628 Y10T428/31656 Y10T442/3415

European: B32B15/08 C08L63/00 C08L63/02 C09J181/04

US: 428/152 428/172 428/174 428/444 442/232

Family:

Publication number	Publication date	Application number	Application date
US2798833 A	19570709	US19540412662	19540225

Priority:

US19540412662 19540225

Probable Assignee: LEWIS LAPSENSOHN

Assignee(s): (std): LEWIS LAPSENSOHN

Inventor(s): (std): JACOB LAPSENSOHN ; LEWIS LAPSENSOHN ; RICHARD LAPSENSOHN

Inventor(s): LAPSENSOHN JACOB ; LAPSENSOHN LEWIS ; LAPSENSOHN RICHARD

Title: METHOD OF PRODUCING CELLULAR BODIES HAVING HIGH COMPRESSIVE STRENGTH

Abstract: ABSTRACT OF THE DISCLOSURE The production of cellular bodies constituting glass foam pellets in end to end abutting engagement laterally bonded together by a tightly adhering expandable binder. The binder may be a foamable organic resin or a foam-able inorganic material. Examples of such materials being partially foamed polystyrene beads or a foamed oxy-chloride oxy-sulfate cement. The present application is a continuation-in-part of application, Ser. No. 378,216, filed June 26, 1964, which in turn is a continuation-in-part of copending application, Ser. No. 132,827, filed Aug. 21, 1961, and both now abandoned.

Classifications:

International (IPC 8-9): B29C70/66 C03B19/08 C03C11/00 C04B26/02 C04B28/30 C04B30/00 C04B38/00 C08J9/32 C08J9/35 C10C3/14 (Advanced/Invention); B29C70/00 C03B19/00 C03C11/00 C04B26/00 C04B28/00 C04B30/00 C04B38/00 C08J9/00 C10C3/00 (Core/Invention)

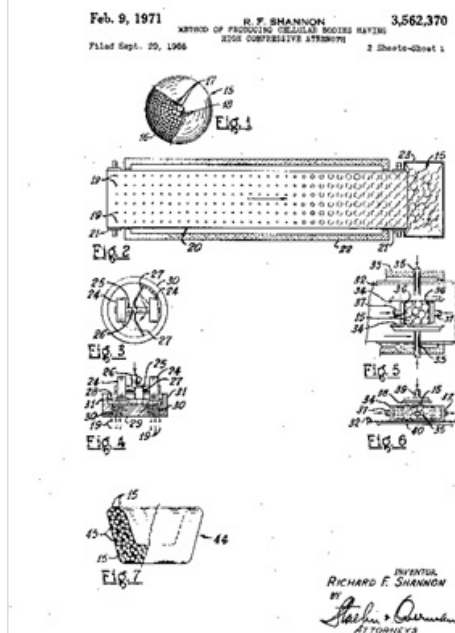
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CPC: C10C3/14 Y10T428/2996 C04B14/24 C03B19/08 C04B38/0038 C08J9/32 Y10T428/268 Y10T428/269 B29C70/66 B29K2105/165 B29K2709/08 C03C11/00 C04B26/02 C04B28/30 C04B30/00 C08J9/35 Y10T428/23971 Y10T428/249961 Y10T428/249972 Y10T428/249974 Y10T428/249989 Y10T428/31627 Y10T428/249981 Y10T428/31938 Y10T428/31942

European: B29C70/66 C03B19/08 C03C11/00 C04B14/24 C04B26/02 C04B28/30 C04B30/00 C04B38/00D C08J9/32 C08J9/35 C10C3/14 L29K105/16C L29K709/08

US: 106/676 161/16.8 252/62 264/109 264/112 264/331.16 264/333 264/41 264/42 264/45 264/45.3 264/45.4 264/46.2 264/48 264/51 425/331 425/4C 425/4R 425/505 425/509 425/516 425/520 427/373 428/310.5 428/313.5 428/313.9 428/316.6 428/318.8 428/338 428/339 428/406 428/428 428/436 428/523 428/524 428/94 501/39 501/82 521/136 521/139 521/146 521/181 521/54 521/83 524/442 65/17.6 65/22

PatBase - US3562370_A



Family:

Publication number	Publication date	Application number	Application date
BE621501 A	00000000		00000000
LU42239 A	19621020		19620820
US3325341 A	19670613	US19660575732	19660829
US3562370 A	19710209	US19660582903	19660929
US3726755 A	19730410	US19700075655	19700925

Priority:

US19610132827 19610821 US19640378216 19640626 US19660575732 19660829
US19660582903 19660929 US19700075655 19700925

Probable Assignee: OWENS CORNING FIBERGLASS CORP

Assignee(s): (std): OWENS CORNING FIBERGLASS CORP

Assignee(s): WADE WILLIAM J ; WILMINGTON TRUST CO ; OWENS CORNING FIBERGLAS A CORP OF DE CORP ; OWENS CORNING FIBERGLAS CORP ; OWENS CORNING FIBERGLAS CORP US

Inventor(s): (std): SHANNON R ; SHANNON RICHARD F

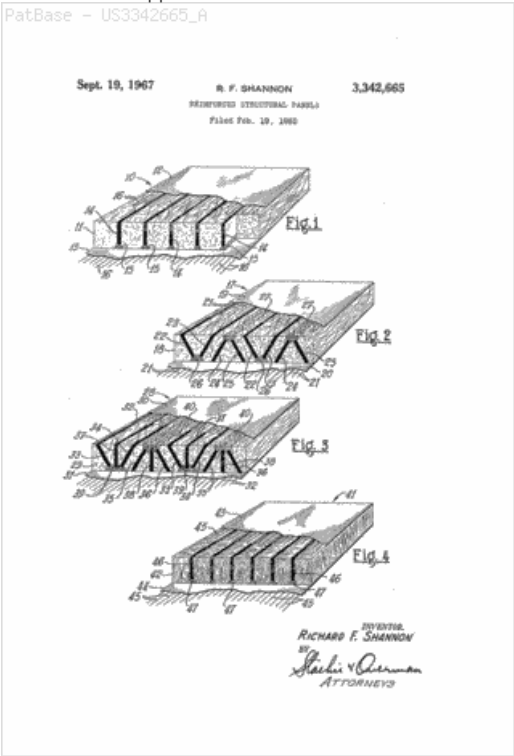
Inventor(s): RICHARD F SHANNON ; SHANNON R US

Title: REINFORCED STRUCTURAL PANELS

Abstract: (Claim 1) 1. A lightweight structural panel comprising a core of intermeshed glass fibers, a plurality of spaced masses of hardened inorganic cementing material having good core penetrating characteristics extending into said core from one surface thereof and terminating a distance from the opposite surface, and a penetrated area of hardened cementing material extending from the innermost end of each of said masses to the opposite surface of said core.

Classifications:

International (IPC 8-9): E04C 2/22 (Advanced/Invention); E04C 2/10 (Core/Invention)
International (IPC 1-7): E04C 2/18
CPC: E04C 2/22 B29C 70/12 B29K 2105/128 Y10T 156/1064 Y10T 428/24132 Y10T 428/24157 Y10T 428/24686
European: B29C 67/14 B2 B29C 70/12 E04C 2/22 L29K 105/12 D
US: 156/257 156/291 428/114 428/117 428/181 428/428 428/696 428/702 428/703



Family:

Publication number	Publication date	Application number	Application date
US3342665 A	19670919	US19620174064	19620219

Priority:

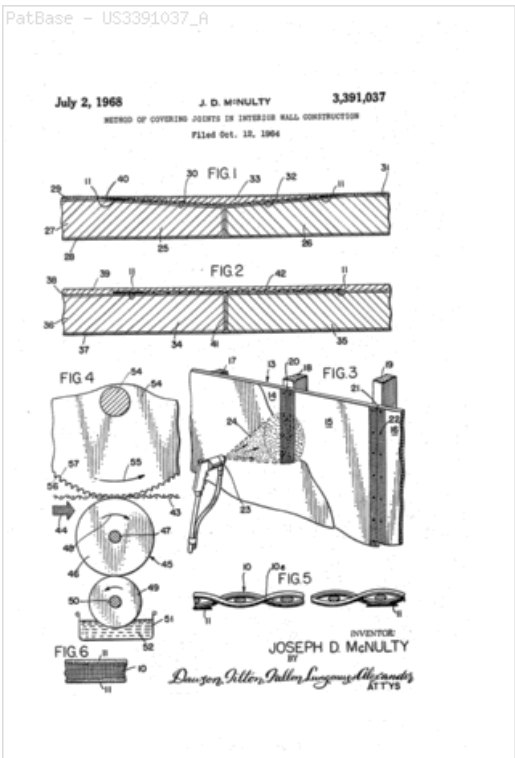
US19620174064 19620219

Probable Assignee: OWENS CORNING FIBERGLASS CORP
Assignee(s): (std): OWENS CORNING FIBERGLASS CORP
Assignee(s): OWENS CORNING FIBERGLASS CORP
Inventor(s): (std): SHANNON RICHARD F

Title: METHOD OF COVERING JOINTS IN INTERIOR WALL CONSTRUCTION

Abstract: ABSTRACT OF THE DISCLOSURE A method of covering joints in interior wall construction. The method utilizes a roll of open-mesh web of fiber glass material which has a pressure-sensitive adhesive applied on one side thereof. The mesh openings are advantageously of the order of about 10 to about 20 per lineal inch. The end of the web roll is secured over an elongated joint defined by adjacent wall panels, the roll is unrolled over said joint while applying pressure to the unrolled web to conform the same to the wall panels on each side of the joint, and a thin coat of plaster is thereafter applied over the web and the wall panels. B

Classifications:
International (IPC 8-9): E04F13/04 (Advanced/Invention); E04F13/02 (Core/Invention)
International (IPC 1-7): C09J7/04 E04F13/04
CPC: E04F13/042
European: E04F13/04
US: 156/280 156/71 52/287.1 52/309.3 52/417



Family:

Publication number	Publication date	Application number	Application date
US3391037 A	19680702	US19640403299	19641012

Priority:

US19640403299 19641012

Probable Assignee: JOSEPH D MCNULTY
Assignee(s): (std): JOSEPH D MCNULTY
Inventor(s): (std): MCNULTY JOSEPH D

Title: HEAT BARRIER COMPOSITION

Abstract: ABSTRACT OF THE DISCLOSURE A heat barrier comprising a bonded intimate admixture of alkaline earth metal sulfate and finely divided carbonaceous material providing a source of available carbon, said barrier having a surface coating comprising alkaline earth metal sulfide, formed by in situ reaction of alkaline earth metal sulfate and carbon, under the influence of heat, which restricts transfer of thermal energy. This application is a continuation-in-part of my application filed Sept. 30, 1968, Ser. No. 763,967, now abandoned, entitled "Heat Barrier Composition," which in turn is a continuation-in-part of my application filed Mar. 14, 1968, Ser. No. 713,231, now abandoned, entitled "**Gypsum** Phenolic Sphere Composition."

This invention relates to the production and use of a heat barrier product having a surface coating which is effective to restrict the transmission of thermal energy. It is an object of this invention to produce a heat barrier product which may be either formed as a block, sheet or other suitable form depending upon the particular application and which is so formed that it may be applied directly to any surface or used under any condition where it is the desire to protect against heat transmission. It is another object of this invention to produce an insulating material which may be of low density and which has high heat barrier characteristics resulting from the formation in situ upon the surface of that material of an alkaline earth sulfide which as formed provides a very effective heat barrier which either reflects or disperses heat producing energy and thus inhibits the transmission of heat through the material. It is another object of this invention to provide a heat barrier product which is composed of an intimate mixture of alkaline earth sulfates and finely divided carbonaceous material which sets and which exhibits under the application of high temperature conditions the property of producing a heat barrier upon the surface which acts to reject or reflect heat-producing energy and which avoids or prevents to a considerable degree transmission of heat through the composition as formed and also is effective upon its formation in retarding the erosion of the composition under such conditions. It is another object of this invention to provide a heat barrier product wherein the rigidity of the product formed is controlled by selecting the materials forming the product in such manner as to permit the formation of a flexible composition which still retains the characteristics of providing an effective heat barrier. It has heretofore been suggested that lightweight aggregates for plaster walls may be prepared by mixing phenolic resin as powder, granules, or Microballoons with **gypsum** plaster and that when so used the phenolic resin acts as a replacement for such other lightweight aggregate materials such as perlite. For example, see the patent to Veatch et al. No. 2,797,201. I have discovered that an effective heat barrier can be produced in situ upon the surface of a composition consisting essentially of an intimate admixture of alkaline earth sulfates and finely divided carbonaceous material. Upon application of heat to a surface of such a composition, the alkaline earth metal sulfate and carbon react, primarily at the surface of the composition, whereby the sulfates are reduced to sulfides to provide an effective thermal barrier on such surface. Sulfides of the character here under consideration and their formation and uses are best exemplified by the article by John M. Blocher, Jr. appearing in "High-Temperature Technology," Editor-in-Chief I. E. Campbell, published by John Wiley Sons, Inc., New York and Chapman Hall, Limited, London, as sponsored by The Electrochemical Society, Inc. of New York, wherein pages 187 to 205 set forth what is apparently the best knowledge with respect to the formation and uses of such sulfides and at the same time states that these sulfides, viewed as refractory sulfides for the most part, are to be considered as laboratory curiosities. I have further discovered that upon the formation of such sulfides upon the surface of an alkaline earth metal sulfate composition containing carbonaceous material, such as carbon-containing plastics, which decompose to active carbon upon application of sufficient heat, heat **penetration** into the composition is so reduced as to effectively retard or prevent further decomposition of the carbonaceous material thereby retarding or preventing further reduction of the sulfates to the sulfides so that erosion of the material upon such application of heat is effectively controlled. I have also discovered that the alkaline earth sulfide coating formed upon the surface of my products is so effective as a heat barrier that even under application of extreme heat thereto by arc plasma jet flames, heat **penetration** into the body of the product is inhibited to such a degree that the back surface **layer** of the coated product does not rise materially in temperature. I have also discovered that the formation of the alkaline earth sulfide coating upon the surface of such products where oxyacetylene gas torch flames are applied directly to such surface results in the same apparent restriction of the heat flow into the material. I have also found that the same results are accomplished through application of any other high temperature conditions applied to the surface such, for example, as are existent in the exhaust at the firing of rocket engines or the like. I have further found that the formation of the sulfide coating is a surface condition in that the material is not seriously eroded during such application of high temperature to its surface due, I believe, to the fact that when the sulfides are formed upon the surface they act to either reflect or disperse the heat producing energy so that the heat flow into the composition is at such a rate that the temperature of the material underlying such sulfide surface does not rise to the point that further sulfides are formed thereunder. The compositions of my invention may be formed by $r60$ using calcined alkaline earth sulfates, i.e., those sulfates which are not fully hydrated. The sulfates may be mixed with water to form a slurry to which carbonaceous material in the condition of fine subdivision is added and thoroughly admixed. The mixture is allowed to set due to hydration of the alkaline earth sulfates so that there is formed a composition in which the alkaline earth sulfates crystals form a matrix in which the particles of finely divided carbonaceous material are held in intimate mixture therewith. The composition, before setting, can be formed into sheets or blocks or can be applied directly to the surface to be protected from heat. When high temperature is applied thereto, there results the formation upon the surface of an alkaline earth sulfide due to the reduction of the sulfate to the sulfide by the carbon which is available at such surface. The term "high temperature" as used herein means a temperature in the order of 900 degrees C. or greater, i.e. at least that temperature at which the sulfates react with carbon to form sulfides. The sulfide forms an apparent thin **layer** or coating upon the surface of the composition. Under conditions where the flame temperature applied to the surface is approximately 10,000 degrees F., it has been found that the back temperature away from the flame, in a composition of $\frac{1}{2}$ inch thickness and where the continued application of the flame through the said surface is for a period of twenty-four seconds, has reached a temperature no higher than about 1400 F. The sulfide barrier formed upon the surface also acts by its property of restriction of heat flow to so reduce heat transmission into the material that the formation of further sulfides is retarded in the composition as will be demonstrated by the test data hereinafter set forth. The alkaline earth sulfates which are applicable for use in carrying out my invention include magnesium **sulfate**, **calcium sulfate**, strontium sulfate, barium sulfate, and all of the alkaline earth sulfates of Periodic Table 2-A as well as mixtures of any of these sulfates. The carbonaceous materials which are useful for carrying out my invention include all materials which will provide available carbon under the influence of sufficient heat to effect the reaction of carbon with sulfates according to the representative equation: $MSO_4 + 2C \rightarrow MS + 2CO_2$ where M is an alkaline earth metal. These materials include all forms of free carbon, such as carbon black, charcoal, coke, and graphite as well as those materials which will decompose, coke or char under the influence of heat to produce available carbon. The latter materials include carbonaceous materials of natural origin, such as, coal, tars, pitches, asphalts, sawdust, nutshells, and other wood or vegetable wastes, natural rubber, gums and resins and materials of synthetic origin including substantially all of the carbon-containing synthetic resins. The carbonaceous materials may be employed in the form of particles which are already of small size or which have been reduced in size by comminuting or by process of manufacture. Mixtures of the various carbonaceous materials may be used as desired. One class of suitable materials is that known under the trademark "Microballoons" as disclosed in Pat. No. 2,797,201. The carbonaceous material may be any of the heat-decomposable film-forming materials, disclosed in this patent including cellulose derivatives, such as cellulose acetate, cellulose acetate-butyrate, and cellulose acetate-propionate, thermoplastic synthetic resins, such as polyvinyl resins, i.e., polyvinyl alcohol (water- or organic solvent-soluble), polyvinyl chloride, copolymers of vinyl chloride and vinyl acetate, polyvinyl butyral, polystyrene, polyvinylidene chloride, acrylic resins such as polymethyl methacrylate, polyallyl, polyethylene, and polyamide (nylon) resins, and thermo-setting resins, such as alkyd, phenol-formaldehyde, urea-formaldehyde and melamine-formaldehyde resins, natural film-forming materials including soybean protein, zein protein, alginates, and cellulose. It is important that the carbonaceous material be finely divided in order that it may be intimately dispersed in the alkaline earth metal sulfate so that carbon is available at substantially all points over the surface area of product composition, whereupon application of heat to such surface will provide a substantially complete coating of alkali metal sulfide over such surface with exclusion of uncoated portions which might otherwise destroy the effectiveness of the product material as a heat barrier. In general, the carbonaceous material should have a maximum average particle size below about 500 microns and, in particular, where hollow spheres of film-forming materials are used the particle size should be below about 500 microns not only to provide the necessary available carbon over the entire surface area but to avoid formation of surface irregularities and holes due to melting or collapsing of the spheres under the influence of heat. Thus, where "Microballoons" such as those described in Pat. No. 2,797,201 are used as a source of carbonaceous material, they should have an average diameter of about 1 to 500

microns, preferably 1 to 250 microns. The proportions of carbonaceous material to alkaline earth sulfate may be varied depending upon the conditions of application or use desired, the nature of the particular carbonaceous material used, the strength and/ or flexibility of the desired product, and the like. The optimum amount of each carbonaceous material necessary to give the desired sulfide coating is readily determined by simple experimentation. I prefer to use about 0.1 to 5 parts by volume of carbonaceous material to 1 part by volume of alkaline earth metal sulfate. The application of heat to the surface of my heat barrier materials may be from any source which will provide a temperature sufficient to cause the reaction between the alkaline earth metal sulfate and carbon. For example, the heat may be from an electrical source, nuclear energy source, or may be provided by a flame. Flames of reducing, neutral or oxidizing nature will cause the reaction to occur. The reaction between sulfate and carbon occurs at a temperature of about 9000 C. Continued heating at higher temperatures may cause some reaction between alkaline earth metal sulfide and sulfate to form alkaline earth metal oxide. However, the presence of some oxide in the sulfide surface coating is not detrimental and is considered within the scope of my invention. Where organic material other than free carbon is used, my theory of the operation performed under the conditions stated is that the carbonaceous material chars at its temperature of decomposition leaving primarily carbon in intimate mixture with the sulfate. Ordinarily the water of crystallization of hydrated sulfates is dissipated before or at the decomposition temperature. Upon decomposition and further application of heat the carbon acts as a reducing agent to reduce the alkaline earth sulfate to the sulfide as a surface condition upon the composition. This formation of alkaline earth sulfides on the surface is as a thin film which appears under the influence of the heat conditions above set forth to be in the nature of a **layer** which is adherent to the composition and acts either by heatproducing energy reflection or dispersion as a barrier which reduces to a high degree the transmission of the heat further into the material or composition. The surface condition having been formed, further heat transmission into the composition is inhibited so that further charring of the carbonaceous material is slowed down as is further reduction of the sulfate to the sulfide. I have found under these conditions that the strength of the composition underlying the surface is not materially affected. Under the conditions as hereinabove expressed where a flame of approximately 10,000 F. is applied to the surface for twenty-four seconds upon a composition of 1/2 inch thickness, the surface erosion of the composition was found to be in the neighborhood of 0.199" and as previously set forth the back surface temperature of the 1/2 inch thickness of material had reached a temperature of only in the neighborhood of 140' F. I have further discovered that I am able to control the flexibility of the composition of my invention by, in effect, interrupting the crystalline interlock of the alkaline earth sulfates forming the composition by adding to the composition of alkaline earth sulfates, thermoplastic carbonaceous materials such as the thermoplastic vinyl, styrene, acrylic, cellulosic, olefinic, and nylon polymers and copolymers, so that I am able to produce a flexible composition as distinguished from a hard inflexible material without interfering with the fundamental property of forming the sulfide upon the surface thereon under conditions of heat application as hereinabove set forth. Thermoplastics such as the polyvinyl alcohols and polyvinyl acetates may be dissolved or suspended in the water used to form the alkaline earth metal sulfate slurry. Mixtures of the various carbonaceous materials both thermosetting and thermoplastic may be used. The formation of the composition having flexible as distinguished from rigid characteristics enables the composition to be used and applied under conditions where rigidity of the composition would deter its application. I have further found that in the preparation of the composition embodying my invention that I am able to produce the composition in such manner as to avoid the formation of cracks or fissures in the material upon the conditions of application of high temperature to its surface as hereinabove defined by incorporating in the slurry formed of the alkali earth sulfates and carbonaceous material a strain or grid of **fiber glass** either at the surface or **embedded** in the composition as it is allowed to set. The following are set forth as specific examples of the composition embodying my invention and of the test results observed. EXAMPLE I **Calcium sulfate**, i.e., **calcium sulfate** hemihydrate (CaSO₄1/2H₂O) is mixed with water to form a slurry using the same proportions of **calcium sulfate** hemihydrate and water as is ordinarily used in forming a slurry for casting purposes. The slurry thus formed as allowed to stand for such period of time as will permit the addition thereto of phenolic resin either in finely ground condition or as Microballoons without the tendency of the said phenolic resin to separate during the subsequent setting, which thereby forms a matrix holding the phenolic resin intimately dispersed with the **calcium sulfate** throughout the composition. In this composition I employ in this specific example 30 percent by volume of CaSO₄1/2H₂O and 70 percent by volume of finely divided phenolic resin of 500 micron maximum average particle size and the amount of water added to form the slurry is in accordance with good practice that amount which will permit the formation of a thick cream slurry, i.e., in most cases employing the minimum of water which will permit the formation of a uniform intimate mixture of the CaSO₄1/2H₂O and phenolic resin. The ratio of CaSO₄ 1/2H₂O, phenolic resin and water employed in forming the composition may, of course, be varied depending upon the conditions of application or use desired and is not herein set forth as a limitation of the proportions of ingredients used in carrying out my invention. I have similarly prepared compositions employing magnesium sulfate, strontium sulfate, and barium sulfate, and phenolic resin, and others of the carbonaceous plastics. EXAMPLE II In producing the composition embodying my invention so that it will have flexibility as distinguished from rigid compositions produced by the above set forth example, I have in a similar manner produced the slurry of the alkaline earth sulfate and water and thermosetting plastic and have added thereto a suspension of thermoplastic material and have found that the composition thereby produced is flexible as distinguished from a rigid composition. Specifically, I have mixed 100 parts by volume of CaSO₄1/2H₂O, sufficient water to form the slurry as above described, to which I have added 200 parts by volume of phenolic resin, and 100 parts by volume of the approximately 50 percent suspension of polyvinyl acetate in water and have found that upon setting, the resultant composition was flexible as distinguished from the rigid composition produced by the first stated example. The operation apparently performed in this example is that the addition of the vinyl plastics to the composition in excess of that set forth in the first example given has prevented the complete interlock of the crystals of the alkaline earth sulfate, leaving the composition flexible. HEAT-BARRIER TESTS A test block of the composition was prepared in the manner hereinabove set forth in Example I in which proportions were 70 percent by volume of phenolic resin Microballoons (max. average particle size 500) to 30 percent by volume of CaSO₄1/2H₂O with water which was allowed to set

to form test blocks which were 2" x 2" square and of 1/2" thickness. An arc plasma jet flame was applied to the surface of such block under the following conditions: Heat flux (B.t.u./ft.² -second) ----- 1000 Gas enthalpy (B.t.u./lb.) ----- 6050 Test duration in seconds ----- 24 Stagnation pressure (p.s.i.g.) ----- 1.242 Gas temperature (degrees F.) ----- 10025 Gas velocity (ft./second) ----- 1913 with the following results: Decrease in weight (grams) -----4.7874 Percentage decrease in weight ----- 3.4 Depth of erosion in inches in the surface so exposed ----- 0.199 Final temperature in ' F.: (a) Back face ----- (b) Front face (optional) -----4820 (c) Front face (total radiation) -----4340 Further tests were conducted in blocks of the same composition to determine the rate of erosion of the surface with the following results: Heat flux Test Erosion (B.t.u./ft.² time rate Specimen see.) (sec.) (nil/sec.) A ----- 1 00 137 3.27 B ----- 500 24 3.96 ----- 00 B4 7.70 D 1,000 24 8.30 Further tests were conducted employing larger sheets of the same composition of like thickness which were tested in an oven over propane gas burners which were spaced 18" on center and where the burners were placed 30" from the face of the test panel. Propane gas was burned in the burners under the conditions hereinafter set forth. The temperatures at the face of the panel, toward which the flames were directed were measured by means of eight Chromel-Alumel thermocouples encased in 1/2 inch iron pipe and placed approximately 6" from the panel face. The vertical and lateral placement of the thermocouples was determined by experimentation and visual observation of the flow pattern of the burning gases. Thermocouple leads were connected through a rotary switch to a Techniques Associates Pyrotemp Model 9-B pyrometer from which temperature readings were obtained manually. The backside temperatures were taken by placing seven iron-constantan thermocouples on the cross framing of the panel and with one thermocouple placed directly on the back surface of the composition. The following temperature readings in degrees Fahrenheit were taken from the panel face: Temperature readings, degrees F., panel face Station number Required Minutes 1 2 3 4 5 6 7 8 temp.

Classifications:

International (IPC 8-9): C04B28/14 C04B41/00 C04B41/45 C08J7/00 C08K3/30 C08L61/10 C09D5/00 (Advanced/Invention); C04B28/00 C04B41/00 C04B41/45 C08J7/00 C08K3/00 C08L61/00 C09D5/00 (Core/Invention)

International (IPC 1-7): B05D3/08 C01F11/00 C04B41/06 C04B43/00 C08J1/30 C08J7/08 C08L61/10 C09D5/00 C23F7/24 **CPC:** C04B41/0018 C04B41/009 C04B28/14 C04B41/4505 C08K3/30 C09D5/00

European: C04B28/14 C04B41/00D C04B41/00V C04B41/45B C08J7/00 C08K3/30 C09D5/00

US: 106/782 252/62 264/29.1 264/80 423/170 423/511 423/566 427/223 427/224 427/228 427/399 521/55 521/83

Family:

Publication number	Publication date	Application number	Application date
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CY822 A	19760910	CY19690000822	19690310
DE1913107 A1	19691023	DE19691913107	19690314
DE1913107 B2	19740328	DE19691913107	19690314
DE1913107 C3	19741107	DE19691913107	19690314
FR2003942 A1	19691114	FR19690007467	19690314
FR2003942 B1	19731221	FR19690007467	19690314
GB1281381 A	19720712	GB19690012589	19690310
US3817925 A	19740618	US19710156993	19710625
US3944685 A	19760316	US19710157732	19710628

Priority:

US19680713231 19680314 US19680763931 19680930 US19680763967 19680930
US19710156993 19710625 US19710157732 19710628

Probable Assignee: PLASTONIUM INC

Assignee(s): (std): GUNNERMAN RUDY ; GUNNERMAN RUDY W ; INSULATION SYST INC ; PLASTONIUM INC

Assignee(s): INSULATION SYST INC US ; RUDY W GUNNERMAN ; GUNNERMAN RUDY W BEVERLY HILLS CALIF V ST A ; GUNNERMAN RUDY US

Inventor(s): (std): GUNNERMAN R ; GUNNERMAN RUDY W ; W GUNNERMAN RUDY

Inventor(s): GUNNERMAN RUDY W BEVERLY HILLS CALIF V ST A ; RUDY W GUNNERMAN ; GUNNERMAN R US

Title: CEMENTITIOUS COMPOSITIONS

Abstract: ABSTRACT OF THE DISCLOSURE An improved cementitious composition curable by hydration and having enhanced properties, such as less water absorbency and greater strength, comprises a cementitious material and a small but effective amount of alkenyl substituted succinic acid or anhydride. RELATIONSHIP TO RELATED APPLICATIONS The present specification and claims are a continuation-in-part of co-pending application Ser. No. 825,926 filed May 19, 1969, now abandoned, which was a continuation-in-part of application Ser. No. 711,790, filed Mar. 8, 1968, now abandoned; and of co-pending application Ser. No. 761,284 filed Sept. 30, 1968, now abandoned, which, in turn, was a continuation-in-part of earlier co-pending application Ser. No. 605,569, filed Dec. 29, 1966, and now abandoned.

Classifications:

International (IPC 8-9): C04B24/04 (Advanced/Invention);

C04B24/00 (Core/Invention)

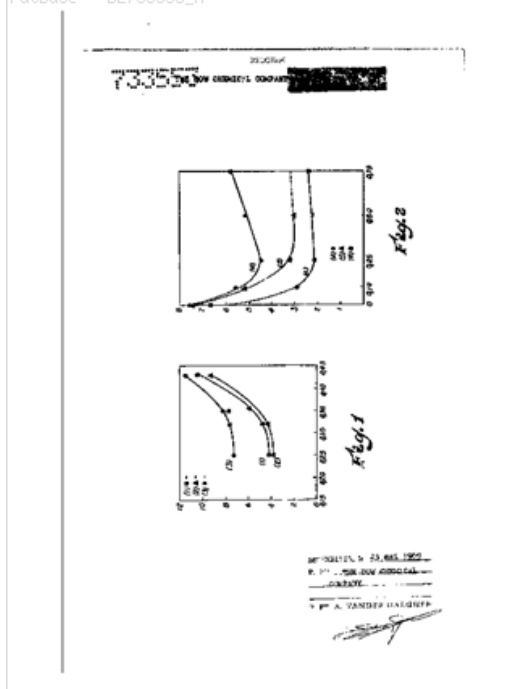
International (IPC 1-7): C04B13/24 C04B7/02 C04B7/32 C04B9/02

CPC: C04B24/04

European: C04B24/04

US: 106/719 106/728 106/90

PatBase - BE733553_A



Family:

Publication number	Publication date	Application number	Application date
BE733553 A	19691124		19690523
US3817767 A	19740618	US19720289006	19720914

Priority:

US19660605569 19661229
US19690825926 19690519

US19680711790 19680308
US19720289006 19720914

US19680761284 19680920

Probable Assignee:

DOW CHEMICAL CO

Assignee(s): (std):

DOW CHEMICAL CO

Assignee(s):

DOW CHEM CO US

Inventor(s): (std):

BOZER K ; COOPER R

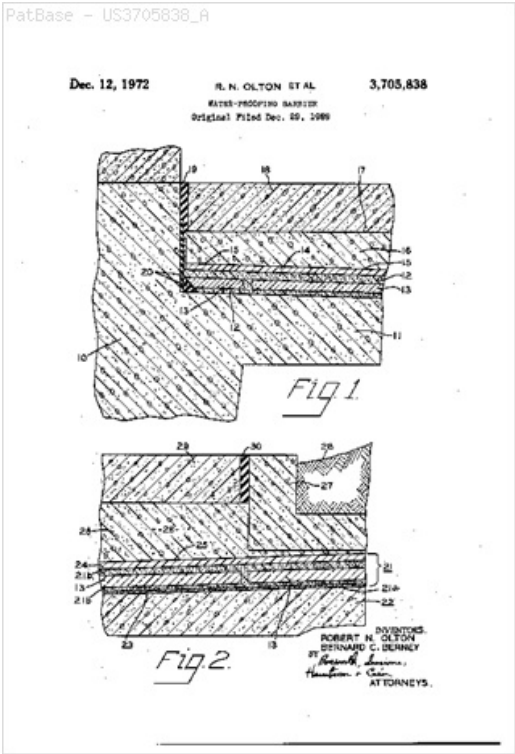
Inventor(s):

COOPER R US ; BOZER K US

Title: WATER-PROOFING BARRIER

Abstract: ABSTRACT OF THE DISCLOSURE
A water-proofing barrier characterized by its controlled swelling when wet and comprising in admixture a water-swella-
ble colloidal clay, such as bentonite, and a particulate, inorganic metal salt treated with an oleaginous car-boxylic acid.
Preferably, the metal salt is calcium carbonate, such as amorphous chalk, treated with an acid like oleic or stearic acids. The
mixture is particularly adapted as a protective **layer** in a below grade concrete roof system, or the like, above which a
pavement, earth, walks, etc., are to be laid. The present mixture may be used alone as in **layer** form or in conjunction with
an adjoining **layer** of water-swella-ble clay to form a multi-**layer** barrier. Optionally, the mixture may include a finely divided
siliceous mineral such as perlite as an additional ingredient. This application is a division of patent application Ser. No.
888,235, filed Dec. 29, 1969, now U.S. Patent No. 3,630,762. B

Classifications:
International (IPC 8-9): C04B33/13 E02D31/02 E04D11/02
E04D7/00 (Advanced/Invention)
International (IPC 1-7): B32B9/00 C04B39/00 C09K3/00 E02D31/02
E04D11/02 E04D7/00
CPC: C04B33/13 E02D31/02 E04D7/00 E04D11/02
European: C04B33/13 E02D31/02 E04D11/02 E04D7/00
US: 106/2 106/232 106/243 106/33 106/465 156/71 161/206
405/107 428/454 428/697 428/701 516/100 52/169.14



Family:

Publication number	Publication date	Application number	Application date
US3630762 A	19711228		19691229
US3705838 A	19721212	US19710130683	19710402

Priority:
US19690888235 19691229 US19710130683 19710402

Probable Assignee: MINERAL PRODUCTS CORP

Assignee(s): (std): MINERAL PRODUCTS CORP

Inventor(s): (std): OLTON ROBERT N ; BERNEY BERNARD C

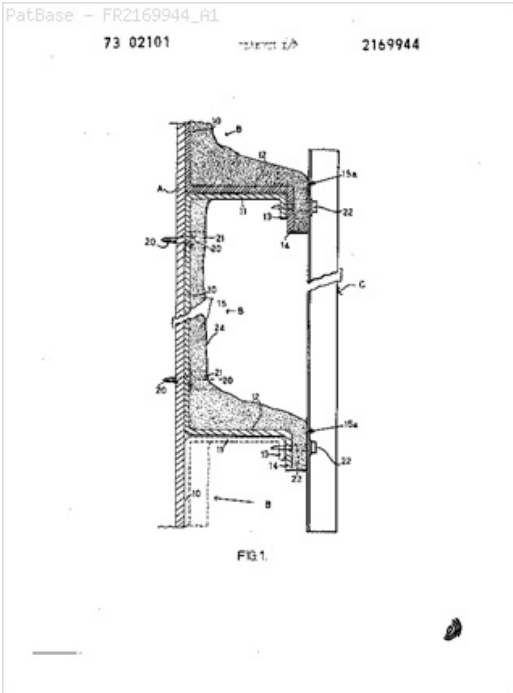
Inventor(s): ROBERT N OLTON ; BERNARD C BERNEY

Title: BAUELEMENT AUS GLASFASERVERSTAERKTEM GIPS

Abstract: Source: FR2169944A [FR] (Claim 1) 1. Un element en forme de plateau, pour la construction de murs extérieurs de bâtiment et de toits en pente, fabrique en pl8- tre renforce de fibres de verre caracterise en ce qu'il comporte une base plate rectangulaire, deux parois laterales paralleles s'etendant chacune a partir de l'un des bords longitudinaux de ladite base, une premiere desdites parois comportant une aile rentrante s'etendant vers l'interieur au-dessus de ladite base, la seconde desdites parois laterales comportant une aile en salie s'etendant vers l'exterieur en s'eloignant de la base, la surface exterieure de l'aile rentrante etant coplanaire avec la surface interieure de l'aile en saillie, une couche d'une composition de matiere plastique en mousse adherant a la surface interieure de la base, a la surface contigue'de la seconde paroi et a la surface exterieure de l'aile en saillie, et les recouvrant.

Machine translation: (Claim 1) 1. An element a shelf for the construction of exterior walls of building and roof slope, produces in-PL8 be reinforced with **glass fibers** characterized in that it comprises a flat rectangular base, two side walls extending parallel each has one from the longitudinal edges of said base, said walls comprising a first wing extending to tuck inside above said base, said second side walls having a wing extending to dirty moving away outside the base, the outer surface of the wing being coplanar with tuck interior surface of the wing projecting composition a **layer** of plastic foam adhering to the inner surface of the base, the surface contigue'de the second wall and the outer surface of the wing projection, and covering them.

Classifications:
International (ipc 8-9): E04B2/56 E04B7/22 E04C2/04 E04F13/16 (Advanced/Invention); E04B2/56 E04B7/00 E04C2/04 E04F13/16 (Core/Invention)
International (ipc 1-7): E04B1/14 E04B1/62 E04B2/02 E04B2/58 E04B2/72 E04B2/88 E04C2/06 E04C2/26 E04C2/46 E04D12/00 E04D3/34
CPC: E04B2/56 E04B7/22 E04C2/043
European: E04B2/56 E04B7/22 E04C2/04C



Family:

Publication number	Publication date	Application number	Application date
AU197351218 A1	19740718	AU19730051218	19730118
BE794520 A	19730516		00000000
BE794520 A1	19730516	BE19730126873	19730125
DE2301091 A1	19730816	DE19732301091	19730110
FR2169944 A1	19730914	FR19730002101	19730122
FR2169944 B1	19760827	FR19730002101	19730122
IT983221 A	19741031	IT19720055209	19721229
JP48088723 A2	19731120	JP19730013648	19730202
NL7301319 A	19730807	NL19730001319	19730130
ZA7300034 A	19731219	ZA19730000034	19730103

Priority:
GB19720005395 19720204

Probable Assignee: ROBERTSON CO H H

Assignee(s): (std): ROBERTSON CO H H

Assignee(s): ROBERTSON CY HH ; ROBERTSON CY HH US ; ROBERTSON H H CO ; ROBERTSON H CO ; ROBERTSON H H ; H H ROBERTSON CO PITTSBURGH PA V ST A ; H H ROBERTSON CY TWO GATEWAY CENTER PITTSBURGH PENNSYLVANIE 15222 E U A ; HH ROBERTSON CY TWO GATEWAY CENTER PITTSBURGH PENNSYLVANIE 15222 EUA

Inventor(s): (std): PAYNE H ; PAYNE HAROLD JAMES WILLIAM

Inventor(s): HAROLD JAMES WILLIAM PAYNE

Title: PORTLAND CEMENT/ORG FIBRE/FERTILIZER MIXES - GROWING MEDIUM FOR THE RECOVERY AND STABILISATION OF SOILS

Abstract: Mixtures based on an inorganic binder, Portland cement, a fibrous organic material, e.g. peat, bark, leaves straw, cellulosic fibres, ground wood knots, paper paste etc, and a fertilizer e.g. NPK, urea, nitrate or manure are used to provide a cheap growing medium for the recovery and stabilisation of waste land resulting from civil engineering work, volcanic eruptions etc. The cement: organic fibre: fertilizer varies according to application but typically is 5-100: 5-40: 1-20. The mixture is applied as an aqueous mix and typically 50-1000 gms. of cement is used to cover 1m² of land. Seeds can be incorporated into the mix.

Classifications:

International (IPC 8-9): C05D9/00 C09K17/52 (Advanced/Invention);
C05D9/00 C09K17/00 (Core/Invention)

International (IPC 1-7): C05G3/04

CPC: Y02A40/284 C05D9/00 C09K17/52

European: 45L2 C05D9/00 C09K17/52

Family:

Publication number	Publication date	Application number	Application date
BE811224 A	19740617	BE19740141089	19740218
DE2406968 A1	19750828	DE19742406968	19740214

Priority:

DE19742406968 19740214 BE19740141089 19740218

Probable Assignee: NORSK HYDRO AS

Assignee(s): (std): NORSK HYDRO AS

Assignee(s): NORSK HYDRO A S

Inventor(s): (std): FONNE GUNNAR JOHAN DIPL CHEM

Inventor(s): JOHAN DIPL CHEM FONNE GUNNAR