



- (51) International Patent Classification:  
C08L 27/06 (2006.01) C09D 5/00 (2006.01)
- (21) International Application Number:  
PCT/IB2017/051767
- (22) International Filing Date:  
28 March 2017 (28.03.2017)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
201621010748 29 March 2016 (29.03.2016) IN
- (72) Inventor; and
- (71) Applicant : LAHOTI, Nilesh [IN/IN]; 350 Nehru Path, Bhagur, Nashik 422502 (IN).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,

HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: A WALL-COATING COMPOSITION AND A METHOD OF MANUFACTURING THEREOF

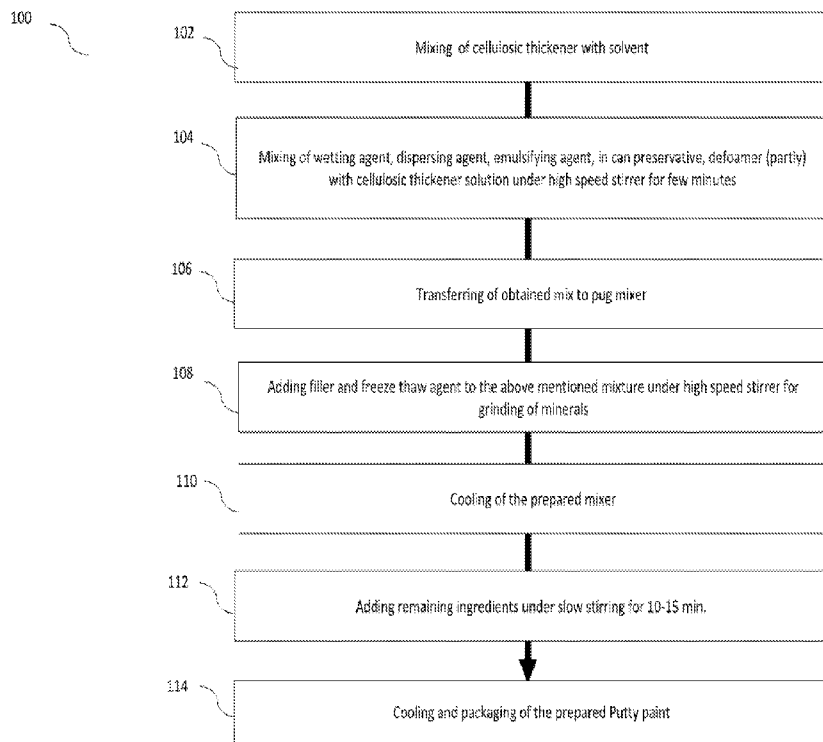


Fig - 1

(57) Abstract: The present invention is all-in-one putty paint composition that over comes the disadvantages posed in the prior art. In particular, the disclosed all-in-one putty paint composition alone works as a primer, putty and paint and can also be used as a commercial paint.

WO 2017/168321 A1

- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*
  - *of inventorship (Rule 4.17(iv))*
- Published:**
- *with international search report (Art. 21(3))*

## **A WALL-COATING COMPOSITION AND A METHOD OF MANUFACTURING THEREOF**

### **FIELD OF INVENTION**

The present invention relates to an all-in-one putty paint composition and more particularly, it relates to method of manufacturing as well as method of coating a substrate using the same.

### **BACKGROUND OF THE INVENTION**

Conventional method of painting requires a number of different coats of primer, putty and paint which is both time consuming and expensive. In, addition to this, various paint compositions are present for painting a masonry surface, cemented wall or concrete surface requires a number of different coats of primer, putty and paint which is both time consuming and expensive.

There is a need for all-in-one putty paint composition that can be used on masonry surfaces, cemented walls or concrete surfaces and which also reduces the cost, time, labor, material required and is easy to renovate, and easy to manufacture.

### **SUMMARY OF THE INVENTION**

The present invention discloses a composition and a method of manufacturing all-in-one putty paint composition having one or more of the features recited in the appended claims and/or one or more of the following features, which alone or in any combination may comprise patentable subject matter.

In accordance with the present invention, the object is to provide a composition for all-in-one putty paint that can be used as primer, putty and paint for masonry surfaces. Accordingly, the present invention provides all-in-one putty paint composition, that comprises: solvent, wetting agent, cellulosic thickener, dispersing agent, emulsifying agent, in can preservative, de-foamer, pigment (titanium dioxide), fillers, pH controller, freeze thaw agent, binder, acrylic thickener, pine oil, coalescing agent and an opaque polymer.

Other embodiments and aspects of the present disclosure are described in detail herein and are considered a part of the present disclosure. In another embodiment of the invention, manufacturing method of all-in-one putty paint composition with method for coating a wall surface using the aforesaid putty paint is described. For a better understanding of the present disclosure with advantages and features, refer to the description and to the drawings.

#### **BRIEF DESCRIPTION OF ACCOMPANYING DRAWINGS**

The foregoing summary, as well as the following detailed description of various embodiments, is better understood when read in conjunction with the drawings provided herein. For the purpose of illustration, there is shown in the drawings exemplary embodiments; however, the presently disclosed subject matter is not limited to the specific methods and instrumentalities disclosed.

FIG.1 is a flow chart illustrating a method for manufacturing of all-in-one putty paint composition, in accordance with an embodiment of the invention.

**DETAILED DESCRIPTION OF INVENTION**

The presently disclosed subject matter is described with specificity to meet statutory requirements. However, the description itself is not intended to limit the scope of this patent. Rather, the inventors have contemplated that the claimed subject matter might also be embodied in other ways, to include different steps or elements similar to the ones described in this document, in conjunction with other present or future technologies. Moreover, although the term “step” may be used herein to connote different aspects of methods employed, the term should not be interpreted as implying any particular order among or between various steps herein disclosed unless and except when the order of individual steps is explicitly described.

The present invention is all-in-one putty paint composition having a paste-like consistency that can be used to coat/ paint any type of masonry surface in less time and reduced cost. The present invention provides all-in-one putty paint composition, characterized by constituents as mentioned in Table 1.0. In an embodiment of the invention, the percentage ranges of the components on a weight basis of the present invention all-in-one putty paint are depicted in Table 1.0, however it is not limiting the scope of the invention.

<b>Raw Materials</b>	<b>Percentage Range</b>
Solvent (Water)	10.0-20.0
Wetting Agent	0.05 - 0.3

Cellulosic Thickener	0.1 - 0.8
Dispersing Agent	0.05 - 0.5
Emulsifying Agent	0.05 - 0.5
In Can Preservative	0.05 - 0.5
Defoamer	0.05 - 0.5
Pigment (Titanium Dioxide)	0.5 - 7.0
Filler	30.0 - 80.0
pH Controller	0.1 - 0.5
Freeze Thaw Agent	0.3 - 2.5
Acrylic Binder	5.0 - 20.0
Acrylic Thickener	0.3 - 2.0
Pine Oil	0.2 - 0.7
Coalescing Agent	0.5 - 1.5
Opaque Polymer	1.0 - 5.0

Table 1.0: Composition of all-in-one putty paint composition and preferred % ranges.

The solvent used to dilute the all-in-one putty paint composition is preferably water and the percentage range of this may arbitrarily be determined depending on properties thereof as well as kinds and amounts of consistency required. The pigment which is preferred to be incorporated at a percentage range of 0.5 to 7.0 preferably includes titanium dioxide. The fillers used in the all-in-one putty paint composition include but not limited to kaolin, talc, or

calcite. The particle size of fillers is 500 mesh or more. The type and range of fillers incorporated in the present invention depends on the physical properties such as color, opacity or texture, or simply to make the paint handle better.

In accordance with the invention, and also shown in Table 1.0, preferred amount which is used for the present composition comprises, by weight, 13 kg solvent (water), 0.2 kg wetting agent, 0.4 kg cellulosic thickener, 0.3 kg dispersing agent, 0.2 kg emulsifying agent, 0.3 kg in can preservative, 0.15 kg defoamer, 3.0 kg pigment (titanium dioxide), 8 kg china clay, 0.3 kg porbunder whiting, 10 kg talc, 35 kg calcite, 0.2 kg ammonia, 0.9 kg freeze thaw agent, 12 kg binder, 0.9 acrylic thickener, 0.3 kg pine oil, 0.35 coalescing agent and 3.0 kg opaque polymer.

Now, referring to FIG.1, which illustrates a flow chart depicting a method 100 for preparation of all-in-one putty paint composition. In an embodiment of the present invention, the all-in-one putty paint composition can be used as primer, putty or paint, and their combinations. The method 100 starts at step 102 involving mixing of cellulosic thickener and solvent. At step 104, ingredients such as wetting agent, dispersing agent, emulsifying agent, in can preservative, defoamer, and pigment are added to the above mentioned solution and grounded in high speed stirrer for few minutes.

At step 106, the mixture prepared at step 104 is then transferred to pug mixture for better grinding and mixing, to get fine and smooth mixture. At step 108, fillers and freeze thaw

agent are added to the fine and smooth mixture and is stirred at high speed to grind all materials. In an embodiment of the invention, fillers used in the putty paint composition presented in table 1.0 are, but not limited to kaolin, talc and calcite. The particle size of fillers is 500 mesh or more. The type and range of fillers incorporated in the present invention depends on the physical properties such as, color, opacity or texture, or simply to make the paint handle better.

At step 110, the above prepared mixture is allowed to cool completely, to get a better base mixture for next step. At step 112, remaining ingredients such as acrylic binder, acrylic thickener, pine oil, coalescing agent and opaque polymer are added under slow stirring preferably for 10-15 minutes.

Finally, at step 114, the resulting mixture from step 112, having paste like consistency, is cooled completely before packaging. The pH range during entire said method is 8.5– 9 and the same is controlled using a basic pH controller.

The all-in-one putty paint composition obtained as above has a paste like consistency and is such that only one coat of it makes it possible to form a film having a thickness of several millimeters or more. Coating of the above putty paint composition may be carried out by spatula-application method, or using a roller or brush, or by a method of controlling a coating viscosity for a spray coating.

The disclosed invention is an all in one product; it can be utilized as primer, putty or paint. In another embodiment of the present invention, the method for painting of substrate surface is described.

A user can use this all-in-one putty paint composition as a primer by preferably applying one coat on substrate surface in the thinning ration of 1:1 with water. This should be allowed 4-6 hours for effective results.

In another embodiment of the present invention, this all-in-one putty paint composition can be used as Putty. For this, preferably two coats of the all-in-one putty paint composition can be applied to eliminate undulations of the wall. It can be diluted with water, if required. It is generally dried for 4-6 hours for good results.

In yet another embodiment of the present invention, this all-in-one putty paint composition can be used as paint. For this application, one coat of all-in-one putty paint composition can be applied using a roller or a brush. This all-in-one putty paint composition can be used as a final paint coat with a thinning ratio of 1:0.5 with water. Use of this all-in-one putty paint composition reduces 2-3 coats of application during the painting job. Hence it minimizes time, labor and material required which ultimately reduces the total cost of the painting.

The flowchart in the Figure 1 illustrates the functionality and operation of possible implementations of methods according to various embodiments of the present subject matter.

In this regard, each block in the flowchart or block diagrams may represent a module,

segment, or portion of instructions, which comprises one or more executable instructions for implementing the specified logical function(s). In some alternative implementations, the functions noted in the block may occur out of the order noted in the figures. For example, two blocks shown in succession may, in fact, be executed substantially concurrently, or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved.

While certain embodiments have been described, these embodiments have been presented by way of example only, and are not intended to limit the scope of the present disclosure. Indeed, the novel methods, devices, and systems described herein may be embodied in a variety of other forms. Furthermore, various omissions, substitutions, and changes in the form of the methods, devices, and systems described herein may be made without departing from the spirit of the present disclosure. The accompanying claims and their equivalents are intended to cover such forms or modifications as would fall within the scope and spirit of the present disclosure.

We claim:

1. A composition for all-in-one putty paint comprising, by weight, 10-20% solvent, 0.05-0.3% wetting agent, 0.1-0.8% cellulosic thickener, 0.05-0.5% dispersing agent, 0.05 - 0.5% emulsifying agent, 0.05-0.5% in can preservative, 0.05-0.5% defoamer, 0.5-7.0% pigment, 30.0-80.0% fillers, 0.1-0.5% pH controller, 0.3-2.5% freeze thaw agent, 5.0-20.0% acrylic binder, 0.3-2.0% acrylic thickener, 0.2-0.7% pine oil, 0.5-1.5% coalescing agent, and 1.0-5.0% opaque polymer.
2. The composition as claimed in claim 1, wherein the fillers are selected from kaolin, talc and calcite.
3. The composition as claimed in claim 1, wherein the fillers have particle size of 500 mesh or more.
4. The composition as claimed in claim 1, wherein solvent is water and the ratio of same can be adjusted according to consistency required.
5. The composition as claimed in claim 1, wherein at least one coat of the composition is used as a primer coating.
6. The composition as claimed in claim 1, wherein one or more coat of the composition are used as putty coating.
7. The composition as claimed in claim 1, wherein one or more coat of the composition are used as paint composition.
8. A method for producing all-in-one putty paint composition, comprising the steps of;

mixing of cellulosic thickener with solvent;

mixing of a wetting agent, a dispersing agent, an emulsifying agent, an in can preservative and a defoamer with cellulosic thickener solution to form a mixture;

transferring the mixture to a pug mixer;

adding fillers and freeze thaw agent to the mixture and grinding;

cooling the resulting mixture; and

adding and mixing an acrylic binder, an acrylic thickener, a pine oil, a coalescing agent and an opaque polymer to the cooled mixture.

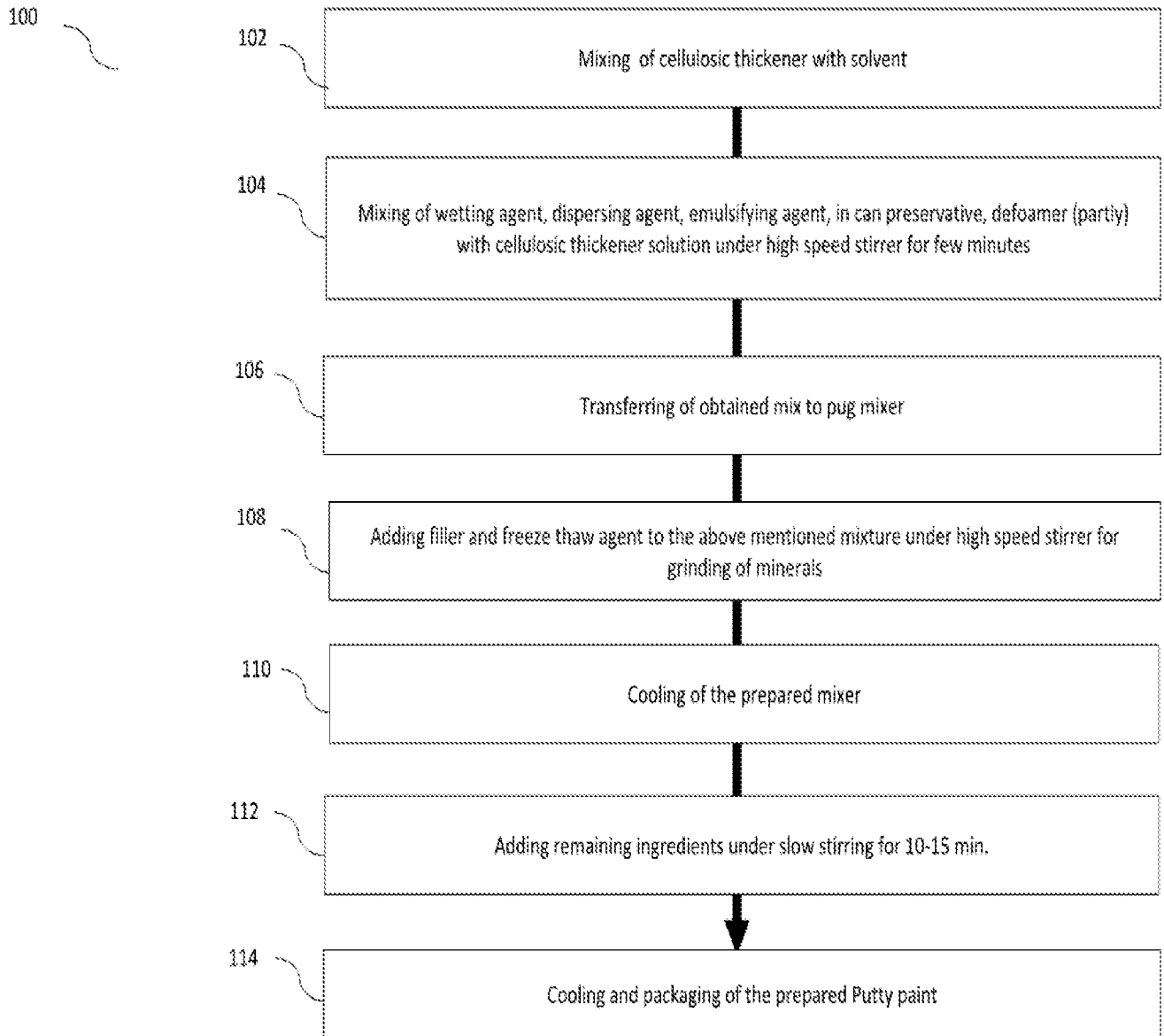


Fig - 1

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB2017/051767

A. CLASSIFICATION OF SUBJECT MATTER  
C08L27/06, C09D5/00 Version=2017.01

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

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C08L, C09D

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

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

Patseer, IPO Internal Database

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US9156809B2 (SEGETIS INC [US]) 13 October 2015 (13.10.2015) col 9 ln 16-46, col 8 ln 65, col 10 ln 9, col 55 ln 36, col 12 ln 52, col 18 ln 40, col 18 ln 25-32, claim 22, col 14 ln 1-15	1-8

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

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 31-05-2017	Date of mailing of the international search report 31-05-2017
---	--

Name and mailing address of the ISA/ Indian Patent Office Plot No.32, Sector 14, Dwarka, New Delhi-110075 Facsimile No.	Authorized officer Harshita Chadda Telephone No. +91-1125300200
--	---

INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.  
PCT/IB2017/051767

Citation	Pub.Date	Family	Pub.Date
US 9156809 B2	13-10-2015	US 2014147395 A1	29-05-2014
		EP 2925738 A1	07-10-2015
		JP 2016506383 A	03-03-2016