



US010472279B1

(12) **United States Patent**
Miller et al.

(10) **Patent No.:** **US 10,472,279 B1**
(45) **Date of Patent:** **Nov. 12, 2019**

(54) **PORTLAND CEMENT-BASED
COMPOSITION WITH IMPROVED
PIGMENT DISPERSION AND COLOR
CONSISTENCY**

(71) Applicant: **H.B. Fuller Construction Products
Inc.**, St. Paul, MN (US)

(72) Inventors: **Bronwyn T. Miller**, Belvidere, IL (US);
Martyn J. Guimon, Glen Ellyn, IL
(US); **Gregory W. Schad**, Cary, IL
(US)

(73) Assignee: **H.B. Fuller Company**, St. Paul, MN
(US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 791 days.

(21) Appl. No.: **14/608,773**

(22) Filed: **Jan. 29, 2015**

(51) **Int. Cl.**
C04B 7/02 (2006.01)

(52) **U.S. Cl.**
CPC **C04B 7/02** (2013.01)

(58) **Field of Classification Search**
CPC **C04B 7/02**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,403,866 A * 9/1983 Falcoff B01F 13/1055
366/132
5,192,366 A 3/1993 Nishioka et al.
5,362,322 A * 11/1994 Johansen, Jr. C04B 26/14
106/482
5,558,708 A 9/1996 Johansen, Jr. et al.
5,650,004 A * 7/1997 Yon C04B 20/1051
106/719

5,746,822 A 5/1998 Espinoza et al.
5,846,315 A * 12/1998 Johansen, Jr. B28C 7/12
106/401
5,855,665 A 1/1999 Johansen, Jr. et al.
5,951,752 A 9/1999 Johansen, Jr. et al.
6,106,608 A * 8/2000 Andree C04B 40/0039
106/695
6,692,565 B2 * 2/2004 Johansen, Jr. C04B 20/10
106/712
6,923,857 B2 8/2005 Constantinou et al.
7,497,904 B2 3/2009 Dulzer et al.
2008/0171812 A1 7/2008 Zhang et al.

FOREIGN PATENT DOCUMENTS

CN 103641390 3/2014
CN 103755291 4/2014
IN 167634 * 11/1990
JP H01320244 12/1989
JP H0328151 2/1991
WO WO 03/042126 5/2003

OTHER PUBLICATIONS

CN 103641390 (Mar. 19, 2014) Xu abstract only.*
CN 103641390 A (Mar. 19, 2014) Xu Machine Translation into
English.*

* cited by examiner

Primary Examiner — Shuangyi Abu Ali
(74) *Attorney, Agent, or Firm* — Kirsten Stone; Allison
Johnson

(57) **ABSTRACT**

A tintable cement-based composition that includes a cement-
based powder component and a pigment component. The
powder component includes Portland cement, a filler, cal-
cium sulfate hemihydrate, aluminum oxide, and Sepiolite
clay; and the pigment component includes at least one
pigment. The components can be packaged separately and
mixed with water at the point of use.

27 Claims, No Drawings