US009115027B2

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

(10) **Patent No.: US 9,115,027 B2**
(45) **Date of Patent: Aug. 25, 2015**

(54) **LOW DUST JOINT COMPOUND AND METHOD OF MAKING THE SAME**

(75) Inventors: **Amba Ayambem**, Monroe, NC (US); **John T. Ferretti**, Matthews, NC (US)

(73) Assignee: **National Gypsum Properties, LLC**, Charlotte, NC (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/880,904**

(22) Filed: **Sep. 13, 2010**

(65) **Prior Publication Data**

US 2011/0065839 A1 Mar. 17, 2011

Related U.S. Application Data

(60) Provisional application No. 61/241,682, filed on Sep. 11, 2009.

(51) **Int. Cl.**

C04B 16/02	(2006.01)
C04B 26/04	(2006.01)
C04B 28/14	(2006.01)
C04B 26/06	(2006.01)
C09D 109/06	(2006.01)
C04B 103/00	(2006.01)
C04B 111/00	(2006.01)

(52) **U.S. Cl.**

CPC ***C04B 26/06*** (2013.01); ***C04B 26/04*** (2013.01); ***C09D 109/06*** (2013.01); *C04B 2103/0065* (2013.01); *C04B 2111/00482* (2013.01); *C04B 2111/00672* (2013.01); *C04B 2111/00681* (2013.01)

(58) **Field of Classification Search**

USPC 524/501, 503

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,454,267	A	6/1984	Williams	
4,661,161	A	4/1987	Jakacki et al.	
4,782,632	A	11/1988	Matechuk	
4,955,748	A	9/1990	Krumholz	
5,039,341	A	8/1991	Meyer	
5,336,318	A	8/1994	Attard et al.	
5,512,616	A	4/1996	Podlas	
5,653,797	A	8/1997	Patel	
6,358,309	B1 *	3/2002	Langford	106/661
6,406,779	B1	6/2002	Carbo et al.	
6,673,144	B2	1/2004	Immordino, Jr. et al.	
6,712,897	B2	3/2004	Ayambem et al.	
2004/0077782	A1	4/2004	Heldmann et al.	
2004/0097645	A1	5/2004	Weitzel et al.	
2005/0014883	A1	1/2005	Blankenship et al.	
2006/0048684	A1	3/2006	Bonetto et al.	
2006/0249705	A1	11/2006	Wang et al.	
2008/0132624	A1	6/2008	Killat et al.	
2008/0216715	A1	9/2008	Langford	
2008/0308968	A1	12/2008	Immordino	
2009/0192242	A1 *	7/2009	Willimann et al.	524/5

FOREIGN PATENT DOCUMENTS

DE	102005012986	A1	9/2006	
EP	0 728 779	A2 *	8/1996	C08F 285/00
EP	0728779	A2	8/1996	
JP	6-287544	A	10/1994	
WO	2009009216	A1	1/2009	
WO	WO 2009/009216	*	1/2009	C08L 33/00

OTHER PUBLICATIONS

PCT/US2010/048657 International Searching Authority, International Search Report, Oct. 14, 2010.

PCT/US2010/048657 International Searching Authority, Written Opinion of the International Searching Authority, Oct. 14, 2010.

* cited by examiner

Primary Examiner — Robert Harlan

(57) **ABSTRACT**

A joint compound or wall repair composition and the method of making the same is disclosed that reduces the amount of airborne dust emitted during traditional sanding processes. Generally, such a reduction can be achieved by combining a first binder that has a high glass transition temperature and a second binder that has a low glass transition temperature with conventional joint compound compositions.

13 Claims, No Drawings