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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SRINIVAS SIRIPURAPU, VITTHAL SAWANT,
SATISH NARAYAN PATIL, and RAJENDRA YASHWANT CHAUDHARI

Appeal 2018-000727
Application 14/735,794
Technology Center 1700

Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and
DEBRA L. DENNETT, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ This Decision includes citations to the following documents: Specification filed June 10, 2015 (“Spec.”); Final Office Action dated July 15, 2016 (“Final”); Appeal Brief filed April 20, 2017 (“Appeal Br.”); Examiner’s Answer dated August 24, 2017 (“Ans.”); and Reply Brief filed October 24, 2017 (“Reply Br.”).

Appellants² appeal under 35 U.S.C. § 134(a) from the Examiner’s decision finally rejecting claims 1–5 and 7–23. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

The invention relates to a method for making a coated, overhead conductor using a compositional kit, and to a method for making the compositional kit. *See* Spec. ¶¶ 10–11. According to the Specification, the compositional kit includes first and second compositions that, when mixed, form a coating composition that can be applied to a conductor to form a coating that allows the conductor to operate at lower temperatures. *Id.* ¶¶ 2, 11. The first composition includes a filler, a cross-linking agent (e.g., reactive agent), and an emissivity agent. *Id.* ¶ 27. The second composition includes a silicate binder. *Id.* According to the Specification, “[t]he inventors have unexpectedly discovered that upon mixing of the two [compositions], the resulting coating composition can both begin to cure and exhibit an increase in viscosity over time.” *Id.* “Because high viscosity adversely affects the coating composition as it is coated onto the bare conductor,” the first and second compositions are kept separate during storage. *Id.* ¶ 38. “In certain embodiments, the coating composition can be used within about 24 hours after mixing, in certain embodiments within about 12 hours, and in certain embodiments within about 8 hours.” *Id.* ¶ 39.

Claim 1 is representative of the claims on appeal, and is reproduced below:

1. A method for making a compositional kit to form a curable coating composition, the method comprising:
 - a. mixing a first composition comprising from about 2% to about 55% of a filler, by dry weight of the compositional kit, about

² The Applicants under 37 C.F.R. § 1.46, and, therefore, the Appellants under 35 U.S.C. § 134, are General Cable Technologies Corporation and Novoto Industries. Appellants identify General Cable Technologies Corporation as the real party in interest. Appeal Br. 1.

5% to about 20% of a cross-linking agent, by dry weight of the compositional kit, and an emissivity agent, the emissivity agent comprising one or more of gallium oxide, cerium oxide, zirconium oxide, silicon hexaboride, carbon tetraboride, silicon tetraboride, silicon carbide, molybdenum disilicide, tungsten disilicide, zirconium diboride, cupric chromite, boron carbide, boron silicide, copper chromium oxide, aluminum nitride, and magnesium oxide; and

b. mixing a second composition comprising a metal silicate binder, wherein the metal of the metal silicate binder is one of an alkali earth metal or an alkaline earth metal; and

wherein the first composition and the second composition are separated.

Appeal Br. 23 (Claims Appendix). Claim 11, the only other independent claim on appeal, recites “[a] method for making a coated overhead conductor, . . . comprising” providing a kit by separately preparing first and second compositions, mixing the first and second compositions to form a coating composition, and then applying the coating composition to a surface of a bare conductor. *Id.* at 25–26. Unlike claim 1, claim 11 does not require a specific emissivity agent. *See id.* at 25.

The Examiner relies on the following references as evidence of unpatentability:

Karki	US 4,123,591	Oct. 31, 1978
Blasko et al.	US 4,318,743	Mar. 09, 1982
Babel et al.	US 5,885,658	Mar. 23, 1999
Griffith et al.	US 5,891,238	Apr. 06, 1999
McCullough et al.	US 2005/0178000 A1	Aug. 18, 2005
Brace et al.	US 2006/0276780 A1	Dec. 07, 2006
Hiel et al.	US 7,179,522 B2	Feb. 20, 2007
Lawry et al.	US 2010/0076719 A1	Mar. 25, 2010
Futaeda et al.	US 2011/0042471 A1	Feb. 24, 2011

Guo	US 2014/0329951 A1	Nov. 06, 2014
Guo	WO 2013/097464 A1	Apr. 07, 2013

The claims stand finally rejected under 35 U.S.C. § 103 as follows (*see* Ans. 2; Final 2–11):

1. claims 1–5, 7, 8, and 10 over Guo and Futaeda, alone or in combination with Blasko;
2. claim 9 over Guo, Futaeda, and Griffith, alone or in combination with Blasko;
3. claims 11, 12, 15–17, 19, 20, and 23 over Guo, Babel and Lawry, alone or in combination with Blasko;
4. claim 13 over Guo, Babel, Lawry, and Karki, alone or in combination with Blasko;
5. claims 14 and 21 over Guo, Babel, Lawry, and McCullough, alone or in combination with Blasko;
6. claim 18 over Guo, Babel, Lawry, and Brace, alone or in combination with Blasko; and
7. claim 22 over Guo, Babel, Lawry, and Hiel, alone or in combination with Blasko.

Appellants’ arguments in support of patentability of dependent claims 2–5 and 7–10 and of dependent claims 12–23 are based on limitations recited in independent claims 1 and 11, respectively. *See generally* Appeal Br. 15–22.

Rejections of claims 1–5 and 7–10 (Grounds 1 and 2)

The Examiner finds Guo discloses or suggests mixing the components of the first and second compositions, with the exception of the claimed emissivity agent. Final 2. The Examiner finds one of ordinary skill in the art would have included an

emissivity agent in Guo's mixture of components based on Fuetada's teaching that IR emitting substances provide climate control functionality. *Id.* at 2–3. The Examiner acknowledges Guo does not form two different compositions that are separated. *Id.* at 3. The Examiner argues, however, that a change in the sequence of adding components to a mixture is *prima facie* obvious absent a showing of unexpected results. *Id.*; *see In re Burhans*, 154 F.2d 690 (CCPA 1946).

In the alternative, the Examiner relies on Blasko for a teaching of a method of making a similar coating composition by combining a portion (150 grams) of the total quantity of potassium silicate with a metal hydroxide hardening agent and adding filler and pigment materials to form a first composition, then adding the remaining portion (200 grams) of the potassium silicate, i.e., a second composition, to obtain the final coating composition. *See* Final 3–4; Blasko 6:51–7:23. The Examiner finds one of ordinary skill in the art would have modified Guo's method to add silicate as the final component in forming the coating composition based on Blasko's disclosure that such order of addition is a known alternative. Final 4.

Appellants argue Specification paragraph 27 and Table 2 evidence unexpected results are achieved by the claimed method: “[I]t has been unexpectedly discovered that upon mixing of the first and second compositions, the resulting coating composition will begin to cure and exhibit an increase in viscosity over time.” Appeal Br. 17; *see also* Reply Br. 3. Appellants argue Guo, alone or in combination with Blasko, fails to “teach or suggest keeping the first and second compositions separate.” Appeal Br. 17; *see also* Reply Br. 3. Appellants assert that Blasko teaches away from the claimed method because Blasko's first composition already includes a metal silicate. Appeal Br. 18.

We agree with the Examiner that Appellants' arguments are not persuasive of reversible error because they are not commensurate in scope with the claims.

See Ans. 2–5. As explained by the Examiner, use of the term “comprising” to introduce the components of each of the first and second compositions means that each of the compositions may include components other than those explicitly recited. *Id.* at 4. In other words, the claims do not preclude the addition of a silicate to the first composition. This interpretation of claim 1 is supported by the Specification’s explicit disclosure that other additives may be included in the first and second compositions. *See* Spec. ¶ 33. Blasko, therefore, does not teach away from the method as claimed.

As also explained by the Examiner, the claim 1 phrase “wherein the first composition and the second composition are separated” does not require separation of the first and second compositions for any particular time period. Ans. 4–5. Again, use of the term “comprising” to introduce the method steps means claim 1 is not limited to the explicitly-recited steps. As drafted, therefore, claim 1 does not preclude a subsequent step of mixing the two compositions immediately following the steps of forming those compositions. This interpretation of claim 1 is consistent with the Specification’s disclosure that keeping the first and second compositions separate is not a requirement (*see* Spec. ¶ 27 (“The two-parts . . . *can* be kept separate until use.” (emphasis added))), and that the coating composition may be applied successfully to a substrate up to 24 hours after combining the first and second compositions (*see* Spec. ¶ 39 *supra* p. 2). Likewise, Specification Table 2 evidences that the particular composition described in Example 1 could be applied successfully as a coating up to 8 hours after mixing the first and second compositions. *See* Spec. ¶ 73. Thus, we agree with the Examiner that the testing described in the Specification is not persuasive evidence of unexpected results in the claimed method. *See* Ans. 2.

In sum, we are not convinced of reversible error in the Examiner's conclusion of obviousness as to claims 1–5 and 7–10 for the reasons stated in the Final Office Action, the Answer, and above.

Rejections of claims 11–23 (Grounds 3–7)

The Examiner relies on Guo and Blasko as discussed above. Final 5–7. The Examiner finds the pigments of Guo are emissivity agents. Final 6. The Examiner finds these references disclose applying a coating composition (inorganic paint) to a substrate, but do not identify explicitly application of the composition to an overhead conductor. *Id.* at 7. The Examiner cites Babel as evidence that the Guo and Blasko inorganic paints can be applied as thermal control paints and would have the property of low solar absorbance with high infrared emittance. *Id.* (citing Babel 4:47–65, Abstract). The Examiner finds the ordinary artisan would have used Guo's paint on the surface of an overhead conductor based on Lawry's disclosure that thermal rating of an overhead conductor can be improved by controlling the emissivity and absorptivity of the surface of the conductor. *Id.* (citing Lawry ¶ 4, Fig. 1).

To the extent Appellants advance the same arguments in support of patentability discussed above in connection with the rejections of claims 1–5 and 7–10 (*see, e.g.,* Appeal Br. 17 (referring to both claims 1 and 11 in discussing the first ground of rejection); *id.* at 20), these arguments are likewise unpersuasive in showing reversible error in the Examiner's rejections of claims 11–23.

Appellants argue the Examiner erred in finding the ordinary artisan would have had a reason to apply Guo's coating composition to an overhead conductor. More specifically, Appellants contend Babel teaches away from using inorganic (ceramic) white paint thermal control coatings and Lawry merely describes an

instrument for measuring emissivity and absorptivity. Appeal Br. 20–21; *see also* Reply Br. 4. Appellants argue the Examiner has not shown that the ordinary artisan would have had a reasonable expectation of success in using the compositions of Guo and Blasko to thermally control an aluminum overhead conductor. Appeal Br. 21; *see also* Reply Br. 5.

The Examiner has addressed these arguments in detail in the Answer. Ans. 5–8. We find the Examiner’s position to be reasonable and supported by the evidence cited by the Examiner in support of the rejections. *See* Final 5–11. We agree with the Examiner that Appellants’ arguments are unpersuasive of reversible error in the Examiner’s conclusion of obviousness as to claims 11–23 for the reasons stated in the Answer. *See* Ans. 5–8. We add that, in general, Appellants’ arguments are unpersuasive because they are directed to the individual teachings of the references and fail to address the Examiner’s findings as to the understanding of the ordinary artisan upon review of the combined teachings of the references. In addition, a number of Appellants’ arguments are based solely on attorney argument. *See, e.g.*, Appeal Br. 21 (“The compositions of Guo and Blasko contain additional components compared to the compositions of Babel including crosslinking agents and large quantities of filler, either of which could interfere with the desired thermal properties. And because Guo discloses pigments, which can be any color, instead of ‘emissivity agents,’ one of ordinary skill in the art would not consider the dry paints of Guo to be thermal coating compositions.”). Arguments of counsel cannot take the place of factually-supported, objective evidence. *In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997).

In sum, we are not convinced of reversible error in the Examiner’s conclusion of obviousness as to claims 11–23 for the reasons stated in the Final Office Action, the Answer, and above.

Order

Claims Rejected	Basis	References	Affirmed	Reversed
1–5, 7, 8, and 10	§ 103	Guo and Futaeda, alone and in combination with Blasko	1–5, 7, 8, and 10	
9	§ 103	Guo, Futaeda, Blasko, and Griffith, alone and in combination with Blasko	9	
11, 12, 15–17, 19, 20, and 23	§ 103	Guo, Babel and Lawry, alone and in combination with Blasko	11, 12, 15–17, 19, 20, and 23	
13	§ 103	Guo, Babel, Lawry, and Karki alone and in combination with Blasko	13	
14, 21	§ 103	Guo, Babel, Lawry, and McCullough, alone and in combination with Blasko	14, 21	
18	§ 103	Guo, Babel, Lawry, and Brace, alone and in combination with Blasko	18	
22	§ 103	Guo, Babel, Lawry, and Hiel, alone and in combination with Blasko	22	
Summary			1–5 and 7–23	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

Appeal 2018-000727
Application 14/735,794

AFFIRMED