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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CLAUS W. LOESCHER, VIKTOR DANNEWITZ,
KIRSTIN KRYBUS, and DIRK KOLOWROT

Appeal 2018-000916
Application 14/363,311
Technology Center 1700

Before JEFFREY B. ROBERTSON, JAMES C. HOUSEL, and
MERRELL C. CASHION, JR., *Administrative Patent Judges*.

HOUSEL, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellants² appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–3 and 5–14 under 35 U.S.C. § 103(a) as

¹ Our decision refers to the Specification (“Spec.”) filed June 6, 2014, the Examiner’s Non-Final Office Action (“Non-Final”) dated November 3, 2016, Appellants’ Appeal Brief (“Br.”) filed June 15, 2017, and the Examiner’s Answer (“Ans.”) dated August 10, 2017.

² Appellants, 3M Company and its affiliate 3M Innovative Properties Company, are identified in the Appeal Brief as the real parties in interest (Br. 2). 3M Innovative Properties Company is the Applicant.

unpatentable over either Kawabata³ or Johnson,⁴ in view of AAPA⁵ and Starka,⁶ and adding Barsotti⁷ for claim 4. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

STATEMENT OF THE CASE

The invention relates to a colored polyvinyl chloride (PVC) adhesive film for producing graphics and a method of applying a graphic to a substrate such as a building or vehicle (Spec. 1:4–7).

Claim 1, reproduced below from the Claims Appendix to the Appeal Brief, is illustrative of the subject matter on appeal.

1. Adhesive film comprising a colored polyvinyl chloride film having opposite first and second major sides, the first major side having an adhesive layer protected by a release liner and a primer layer arranged between the colored polyvinyl chloride film and the adhesive layer, the primer layer comprising an aminoplast and a polyester and/or a curing product thereof and having a thickness of more than 10 microns, the second major side having a clear transparent top layer.

Claim 11 recites a method of producing a graphic on a substrate comprising removing the release liner from the adhesive film of claim 1 and applying the film to the substrate.

³ Kawabata et al., US 2005/0175818 A1, published August 11, 2005 (“Kawabata”).

⁴ Johnson et al., US 4,818,589, issued April 4, 1989 (“Johnson”).

⁵ Appellants’ admitted prior art, Spec. 1:10 (“AAPA”).

⁶ Starka, US 4,752,532, issued June 21, 1988.

⁷ Barsotti, US 4,614,683, issued September 30, 1986.

ANALYSIS

We review the appealed rejections for error based upon the issues identified by Appellants and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) *cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”).

After considering the evidence presented in this Appeal and each of Appellants’ arguments, we are not persuaded that Appellants identify reversible error. Thus, we affirm the Examiner’s rejections for the reasons expressed in the Non-Final Office Action and the Examiner’s Answer. We add the following primarily for emphasis.

Appellants argue claim 9 separately, but otherwise argue the remaining claims as a group. We address claim 9 separately from representative claim 1, but claims 2–8 and 10–14 stand or fall with claim 1 pursuant to 37 C.F.R. § 41.37(c)(1)(iv) (2016).

The Examiner finds that Kawabata and Johnson each teach a decorative adhesive film comprising, sequentially, a carrier, a clear (transparent) topcoat, a colored polymer film, a primer layer, an adhesive layer, and a release liner, wherein the carrier and release liner are removed during application of the film to an object (Non-Final 2, ¶ 4; 5, ¶ 13). The Examiner further finds that although Kawabata prefers that the primer layer have a thickness of 10 microns, Kawabata recognizes that this layer could be made thicker (*id.* at 2, ¶ 4). The Examiner also finds that Johnson’s reinforcing layer is a primer layer that is preferably at least 20 microns thick (*id.* at 5, ¶ 13).

The Examiner acknowledges that neither Kawabata nor Johnson teaches that the colored polymer film is made of PVC (Non-Final 3, ¶ 5; 5, ¶ 14). However, the Examiner finds that the AAPA teaches PVC as a well-known material for a decorative adhesive film (*id.*). Therefore, the Examiner concludes that it would have been obvious to make the decorative adhesive film of either Kawabata or Johnson using PVC, a well-known alternate polymer material for such films, as the colored polymer film with predictable success (*id.*).

The Examiner further acknowledges that neither Kawabata nor Johnson teaches that the primer layer comprises a polyester and an aminoplast (Non-Final 3, ¶ 6; 5–6, ¶ 15). However, the Examiner finds these are known base and crosslinking materials for many primers as taught by Starka, “which uses up to 85% . . . polyester with as little as 15% of a butylated melamine formaldehyde aminoplast resin to form a primer coating composition which has excellent adhesion to all types of substrates including plastic” (*id.* at 3, ¶ 6). Therefore, the Examiner concludes that it would have been obvious to substitute the known polyester/aminoplast primer of Starka for that of Kawabata’s primer layer or Johnson’s reinforcing layer with predictable success, especially given that each is useful in automobile applications (*id.*).

Appellants argue that neither Kawabata nor Johnson discloses a structure using a PVC film (Br. 8). Appellants assert that Kawabata, instead, expressly discloses that the decorative layer comprises a vinyl chloride-vinyl acetate copolymer resin, a urethane based resin, or an acrylic based resin (*id.*). In addition, Appellants assert that Johnson expends more than a full column describing the composition of the colored layer with no mention of

PVC (*id.*). Appellants contend that the Examiner fails to provide any teaching or suggestion “that PVC may be substituted for any of the materials used in Kawabata, Johnson, Starka, or Barsotti, nor can any such teaching be inferred, particularly in light of the recognized unpredictability of the chemical arts” (*id.*). Appellants also contend that “any overlap in characteristics between PVC and the materials used in Kawabata or Johnson [would not] be predictive of success in combination with a primer layer ‘comprising an aminoplast and a polyester and/or a curing product thereof’” (*id.*).

This argument is not persuasive of reversible error. An express teaching need not be present in the art to support the substitution of one element for another element used for the same purpose. *In re Fout*, 675 F.2d 297, 301 (CCPA 1982); *In re Siebentritt*, 372 F.2d 566, 567–68 (CCPA 1967) (express suggestion to interchange methods which achieve the same or similar results is not necessary to establish obviousness). Although neither Kawabata nor Johnson teaches that the colored or decorative layer may be made of PVC, Appellants admit that “PVC based adhesive films have been widely used in producing graphics or decorations on substrates” (AAPA, Spec. 1:10). Appellants further admit that these PVC based adhesive films have been used on vehicles (Spec. 1: 11–12). Similarly, both Kawabata and Johnson disclose that the decorative adhesive film may be used on vehicles (Kawabata ¶ 1; Johnson 1:11–16).

The substitution of one known element for another is obvious when the combination yields no more than a predictable result, as here (i.e., using PVC as the material for the colored or decorative layer in Kawabata or Johnson). *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007) (“when a

patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result”). Although Appellants contend that such a substitution would not have been obvious “in light of the recognized unpredictability of the chemical arts,” (Br. 8). Appellants fail to direct our attention to any evidence in the record in support of this contention, nor do we find any. Nor do Appellants direct our attention to any evidence or provide persuasive technical reasoning why any overlap in characteristics between PVC and the materials used in Kawabata or Johnson would not be predictive of success when combined with a primer layer comprising an aminoplast and a polyester and/or a curing product thereof. Attorney argument cannot take the place of evidence. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

Appellants next argue that Starka fails to teach an adhesive primer for binding adhesive to PVC (Br. 6). Appellants assert that Starka generically describes the surfaces that may be used with the primer as “metals and plastics,” but does not teach priming a PVC surface, a flexible film, or an adhesive coating (*id.*). In addition, Appellants contend that Starka and Kawabata concern “distinctly different technology” (*id.*). As such, Appellants urge that the rejections fail to provide motivation to look to the art of binding automotive paint to auto parts, as taught in Starka, for a way to bind pressure sensitive adhesive to the decorative layer of Kawabata (*id.* at 7). As to Johnson, Appellants contend that Johnson’s reinforcing layer must have characteristics distinct from those required of primer layers, particularly the ability to resist damage to itself or the colored layer on impact (*id.*). Therefore, Appellants urge that the rejections fail to provide

motivation to look to the art of binding automotive paint to auto parts, as taught in Starka, to find a reinforcing layer meeting Johnson's requirements (*id.* at 8).

These arguments are not persuasive of reversible error. As the Examiner finds, Starka teaches that its primer material, comprising polyester and an aminoplast, has "excellent adhesion to all types of substrates such as metal and plastics" (Ans. 2; Starka Abstract). Therefore, the ordinary artisan would have reasonably expected that Starka's primer material would likewise have excellent adhesion to PVC, a well-known plastic material. *KSR*, 550 U.S. at 401 ("if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill."). Indeed, it is Starka's teaching that this primer material has excellent adhesion to all types of substrates including metals and plastics, especially with regard to graphics for vehicles, that commends this reference to the attention of the skilled artisan looking to modify Kawamata's the primer layer of decorative adhesive film which is also applicable to vehicles. In other words, Starka's teaching motivates the ordinary artisan to substitute a primer material comprising polyester and an aminoplast for Kawamata's primer layer with a reasonable expectation of achieving excellent adhesion between the adhesive layer and the colored polymer layer.

Regarding the Examiner's finding that Johnson's reinforcing layer is a primer layer, the Examiner notes that Appellants fail to provide any special definition or limitation distinguishing a primer layer from Johnson's reinforcing layer (Ans. 3). In addition, the Examiner finds that Johnson's

reinforcing layer has the same thickness as the claimed primer layer and performs its reinforcement function “by virtue of its strong adhesion to the lower side of the top layer, which prevents it from chipping or delamination” (*id.*). As such, the Examiner determines that Johnson’s reinforcing layer performs as a primer layer (*id.*). Given Johnson’s teaching that the reinforcing layer functions to support and resist damage to the colored decorative layer or itself when applied to a vehicle and Starka’s teaching that a primer material comprising polyester and an aminoplast provides excellent adhesion to all types of substrates including metals and plastics, the ordinary artisan would have been motivated to substitute Starka’s primer material for Johnson’s reinforcing material with a reasonable expectation of success.

Finally, Appellants argue that the Examiner fails to make any finding that the clear top coat of either Kawamata or Johnson is composed of PVC as required by claim 9 (Br. 9). The Examiner responds that “where a base film layer is made from PVC, making its clear transparent topcoat layer from a like material—the principle of ‘like bonds to like’—would have been *prima facie* obvious” (Ans. 4). The Examiner also finds that Kawabata and Johnson suggest the use of the same material for the topcoat and the base film, highlighting the desire to have these two layers bond well (*id.*; Kawabata ¶ 167; Johnson 6:58–7:37). Appellants fail to rebut or otherwise address these findings and, therefore, fails to identify reversible error in the Examiner’s rejections of claim 9.

Accordingly, we will sustain the Examiner’s obviousness rejections of claims 1–14.

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DECISION

Upon consideration of the record, and for the reasons given above and in the Non-Final Office Action and the Examiner's Answer, the decision of the Examiner rejecting claims 1–14 under 35 U.S.C. § 103(a) as unpatentable over either Kawabata or Johnson in view of AAPA and Starka, alone or further in view of Barsotti, is *affirmed*.

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).

AFFIRMED