

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES W. PAUL, MATTHEW L. SHARAK,
LEISA A. RYAN, MARIA XENIDOU,
MICHAEL G. HARWELL and QIWEI HE

Appeal 2007-0124
Application 10/273,836
Technology Center 1700

Decided: January 11, 2007

Before THOMAS A. WALTZ, CATHERINE Q. TIMM, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

WALTZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Primary Examiner's final rejection of claims 1 through 9 and 16 through 20, which are the only claims

Appeal 2007-0124
Application 10/273,836

pending in this application (Br. 1, 3; Answer 2).¹ We have jurisdiction pursuant to 35 U.S.C. § 134.

According to Appellants, the invention is directed to a low application temperature hot melt adhesive comprising a styrene block copolymer in an amount from about 10 to about 25 weight % and a wax in an amount of less than 10 weight % such as to produce the claimed properties of viscosity, cube flow, DSC crystallization temperature, and storage modulus (Br. 2-3).

Illustrative independent claim 1 is reproduced below:

1. A low application temperature hot melt adhesive comprising a styrene block copolymer and a wax in an amount effective to produce a viscosity at 120°C of below about 10,000 centipoises, a cube flow at 54°C of less than about 300%, a DSC crystallization temperature of less than about 75°C, and a storage modulus of less than about 1.0×10^7 dynes/cm² at 10 rads/sec (25°C), wherein the styrene block copolymer is present in amounts of from about 10 to about 25 wt % and said effective amount of wax is less than 10 wt %.

The Examiner relies on the following reference:

Ryan US 5,387,623 Feb. 7, 1995

The Examiner has relied on Ryan, US 5,387,623, issued Feb. 7, 1995, as the sole evidence in support of unpatentability of the appealed claims (Answer 3, ¶ (8)). Appellants rely on Malcolm, US 5,024,667, issued

¹ As correctly noted by the Examiner (Answer 2, ¶(3) and (6)), Appellants inadvertently state that claims 1, 3, 21, and 30-32 stand finally rejected under § 103(a) over Ryan (Br. 2, ¶ III, and 3 (heading “A” under “Argument”)). However, Appellants clearly state the correct claims on appeal and involved in the sole rejection on appeal (Br. 1, 3).

Jun. 18, 1991, as evidence of non-obviousness (e.g., Br. 4; see the Evidence Appendix attached to the Brief).

Claims 1-9 and 16-20 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Ryan (Answer 4). Based on the totality of the record, we AFFIRM this rejection on appeal essentially for the reasons stated in the Answer, as well as those reasons set forth below.

OPINION

The Examiner finds that Ryan discloses formulations comprising a styrene block copolymer in an amount within the range claimed, and polyethylene wax, also in an amount within the claimed range (Answer 4). The Examiner finds that the Specification clearly indicates that low molecular weight polyethylene waxes are suitable as waxes for the claimed invention (*id.*, citing the Specification 5:25). In view of these findings, the Examiner finds that the composition disclosed by Ryan is “substantially identical” to the claimed hot melt adhesive (*id.*). Therefore, the Examiner concludes that there is a “reasonable basis” for believing that the claimed properties, not explicitly disclosed by Ryan, are “inherently possessed” by the reference compositions (*id.*).² Accordingly, the Examiner believes the burden of proof has been shifted to Appellants (*id.*).

² The Examiner erroneously states that the claimed properties are “inherently possessed in Kueppers” (Answer 4). We hold this error harmless since it is clear from the context of the rejection that the Examiner is referring to Ryan,

Appellants argue that only Table III of Ryan describes hot melt adhesives, and this Table is identical to Table 1 of Malcolm, US 5,024,667, which is cited by Ryan at col. 12, l. 19 (Br. 4). Appellants argue that Ryan is silent as to application temperatures,³ and thus fails to disclose or suggest an adhesive formulation that can be applied at low temperatures, i.e., below about 120°C. (*id.*; *see also* Br. 5). Appellants further argue that Malcolm does disclose application temperatures for the identical hot melt adhesives taught by Ryan, and discloses that the adhesives can be applied at temperatures of about 250°F to 325°F. (*id.*).

Appellants' arguments are not persuasive. As correctly noted by the Examiner (Answer 5), the claims are not limited to a hot melt adhesive formulation that can be applied at temperatures below about 120°C. Furthermore, the term "low application temperature hot melt adhesive formulation" is defined contrary to Appellants' arguments, i.e., this term is limited to "formulations that can be applied at temperatures below about 130°C" (Specification 4:1-2). Application temperatures below about 130°C are clearly within the scope of the disclosure of Malcolm. Additionally, Malcolm teaches an application temperature for these hot melt adhesives of "a temperature of about 250°-325°F" (Malcolm, col. 10, ll. 34-35, italics added). Since 250°F equals 121°C, and the term "about" indicates some

not the withdrawn reference to Kueppers, US 5,939,483 (final Office action dated Apr. 25, 2005, p. 2, ¶3).

³ This statement by Appellants is incorrect since Ryan does exemplify an application temperature of 275°F. (135°C.) (Ryan, col. 14, l. 32).

Appeal 2007-0124
Application 10/273,836

slight variation is permissible in either direction,⁴ we determine that Malcolm suggests application temperatures slightly below 121°C, i.e., including values less than 120°C.

Appellants argue that “non-obviousness” of the invention over the disclosure of Ryan is clear from the results set forth in Table 2 of the Specification (Br. 5). However, the burden of explaining unexpected results, as well as establishing that the comparison is with the closest prior art and commensurate in scope with the claimed subject matter, rests with Appellants. *See In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972); and *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Int. 1992). Here, we determine that Appellants have merely referred us to Table 2 in the Specification without any explanation, and, thus, Appellants have not met their burden.

We agree with the Examiner that Ryan describes hot melt adhesive formulations within the scope of the claims on appeal, and Appellants have merely chosen to describe their invention in terms of certain physical characteristics that do not appear in Ryan or Malcolm (see Malcolm, col. 4, l. 64-col. 5, l. 4). However, merely describing the inventive formulation in terms of different physical characteristics than the prior art does not render the formulation patentable. *See In re Spada*, 911 F.2d 705, 708,

⁴ *See In re Woodruff*, 919 F.2d 1575, 1577, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990) (a concentration of “about 1-5%” does allow for concentrations slightly above 5%).

Appeal 2007-0124
Application 10/273,836

15 USPQ2d 1655, 1657-58 (Fed. Cir. 1990). We determine that the Examiner has established a reasonable basis or belief that the formulations, and their attendant properties, are the same or substantially the same, and Appellants have not met their burden of proof that the claimed formulation differs substantially from the formulation of Ryan. *See Spada, supra;* and *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977).

For the foregoing reasons and those stated in the Answer, we determine that the Examiner has established a prima facie case of anticipation/obviousness which has not been adequately rebutted by Appellants' arguments and evidence. Therefore we affirm the rejection of the claims on appeal under § 102(b)/§ 103(a) over Ryan.

The decision of the Examiner 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)(iv) (2004).

AFFIRMED

clj

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