

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN G. PAPALOS, SHAILESH SHAH,
REUBEN H. GRINSTEIN, JOSEPH L. MULVEY,
and BRIAN G. JEWELL

Appeal No. 98-3111
Application No. 08/529,127

ON BRIEF

Before OWENS, LIEBERMAN, and DELMENDO, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner refusing to allow claims 1 through 7, 10, 11, and 14, as amended subsequent to the final rejection, which are all the claims pending in this application.¹

THE INVENTION

The invention is directed to a self dispersing epoxy resin composition containing an epoxy resin, and a polyoxyalkylene monoamine. The polyoxyalkylene monoamine has a number average molecular weight of from about 3,000 to about 15,000 and is present in a specified ratio to the epoxy resin. Other features of the matter are set forth in the following illustrative claim.

THE CLAIM

Claims 1 is illustrative of appellants' invention and is reproduced below.

1. A self-dispersing curable epoxy resin composition comprising the addition product of reactants comprising an epoxy resin and a polyoxyalkylene monoamine having a number average molecular weight of from about 3,000 to about 15,000 in a ratio of about

¹Two amendments subsequent to the Final Rejection received September 23, 1997, and November 26, 1997 were entered by the examiner. See the Advisory Action mailed October 10, 1997 and the Answer, page 2.

0.001 to 0.060 reactive equivalents of polyoxyalkylene monoamine to about 1.0 reactive equivalent of epoxy resin.

THE REFERENCE OF RECORD

As evidence of obviousness, the examiner relies upon the following reference.

Waddill

4,423,170

Dec. 27, 1983

THE REJECTION²

Claims 1 through 7, 10, 11 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Waddill '170.

OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with the appellants that the rejection of claims 1 through 7, 10, 11 and 14 as unpatentable over Waddill '170 is not well founded. Accordingly, we reverse this rejection.

The Rejection under 35 U.S.C. § 103(a)

[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability,² whether on the grounds of anticipation or obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24

USPQ2d 1443, 1444 (Fed. Cir. 1992). On the record before us, the examiner relies upon a single reference to reject the claimed subject matter and establish a *prima facie* case of obviousness.

Waddill '170 discloses the reaction of a diepoxide with a polyoxyalkyleneamine having a molecular weight of 900 to 2500. See column 1, lines 51-56. The diepoxide or epoxide resin has an average of 1.8 reactive 1,2-epoxy groups per molecule. See column 2, lines 7-9. The polyoxyalkyleneamine is preferably a monoamine. See column 2, lines 37-38. In the embodiment directed to a polyoxyalkylenediamine the molecular weight ranges from 900 to 2500. See column 2, lines 43-59. In the embodiment wherein the amine is a polyoxyalkylene monoamine, the molecular weight ranges from 900 to 100. See column 2, line 60 to column 3, line 10. Examples utilize low molecular weight epoxy resins. See Example Ia. In addition, the sole example directed to a polyoxyalkylene monoamine, utilized a polyoxyalkylene monoamine within the scope of patentees' molecular weight range, i.e., about 1,000. See Example Ib, Jeffamine M-1000.

There is no suggestion of utilizing a polyoxyalkylene monoamine having an average molecular weight of at least about 3,000. Indeed, there is no suggestion in Waddill '170 for the utilization of a molecular weight of polyoxyalkylene monoamine of greater than 1100. A fair reading of Waddill '170 is that the higher molecular weight amines are directed to diamines and the lower molecular weight amines are directed to the monoamines. In any event, even if the upper limit of a molecular weight of 2,500 was construed to read on the monoamine, it would nonetheless be unobvious to replace a polyoxyalkylene monoamine having a molecular weight of about 1,000 with a polyoxyalkylene monoamine having a molecular weight of about 3,000. Although the disclosure of Waddill '170 reads, "about 2500," and that of the claimed subject matter requires a molecular weight of "about 3,000," we conclude that each "about" is too remote from the other to encompass the other.

The examiner suggests that it would have been obvious to use a polyoxyalkylene monoamine having a slightly greater molecular weight, Answer page 4, for the purpose of improving the dispersing effects. In this respect, the examiner directs our attention to Waddill '170, column 3, lines 15-33. However, that section discloses that molecular weights of less than 900 fail to provide the requisite dispersibility of the composition. There is no suggestion present in Waddill '170 for the utilization of a polyoxyalkylene monoamine of higher molecular weight as required by the claimed subject matter.

The issue regarding obviousness, however, is not whether one of ordinary skill in the art would have been able to substitute a polyoxyalkylene monoamine having a higher molecular weight in place of the lower polyoxyalkylene monoamine disclosed by Waddill '170, but, rather, is whether the applied prior art itself would have provided such a person with a motivation to carry out the claimed invention and a reasonable expectation of success in doing so. See *In re Vaecck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988). On the record before us, no such

Decision

The rejection of claims 1 through 7, 10, 11 and 14 under 35 U.S.C. § 103(a) as being unpatentable over Waddill '170 is reversed.

The decision of the examiner is reversed.

REVERSED

²A rejection of the grounds of obviousness-type double patenting has been withdrawn by the examiner. See Answer, page 6.

TERRY J. OWENS
Administrative Patent Judge

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PAUL LIEBERMAN

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Administrative Patent Judge

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