*THIS OPINION WAS NOT WRITTEN FOR PUBLICATION*

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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*Ex parte* DAVID J. ST. CLAIR and JAMES R. ERICKSON

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Appeal No. 96-1781
Application 08/389,521[1]

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ON BRIEF

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Before WINTERS, JOHN D. SMITH and OWENS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is an appeal from the examiner's final rejection of claims 13 and 14 and refusal to allow claims 11 and 12 as

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[1] Application for patent filed February 16, 1995. According to appellants, the application is a division of Application 08/262,818, filed June 21, 1994.

amended after final rejection. These are all of the claims remaining in the application.

*THE INVENTION*

Appellants' claimed invention is directed toward a method for making a water dispersion of a crosslinkable epoxidized polydiene block polymer composition by dispersing in a mixture of water and a nonionic or anionic surfactant having a volatile cation, by use of a high shear mixer/emulsifier, a mixture of an epoxidized block polymer and a compatible aminoplast. Claim 11 is illustrative and reads as follows:

11. A process for making a water dispersion of a crosslinkable epoxidized polydiene block polymer composition which comprises:

(a) making a mixture of a surfactant which is nonionic or anionic and has a volatile cation and water,

(b) adding a mixture of an epoxidized block polymer having a weight average molecular weight of from 2000 to 3,000,000 and a compatible aminoplast to the surfactant/water mixture, and

(c) dispersing the polymer/aminoplast mixture in the surfactant/water mixture by mixing with a high shear mixer/emulsifier.

*THE REFERENCES*

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| Anderson | 4,043,963 | Aug. 23, 1977 |
| Bozzi et al. (Bozzi) | 4,115,328 | Sep. 19, 1978 |

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|---|---|---|
| Udipi et al. (Udipi) | 4,135,037 | Jan. 16, 1979 |
| Howell, Jr. | 4,255,305 | Mar. 10, 1981 |
| Erickson et al. (Erickson) | 5,247,026 | Sep. 21, 1993 |

*THE REJECTION*

Claims 11-14 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of Howell, Jr., Anderson, Bozzi, Erickson and Udipi.[2]

*OPINION*

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with the examiner that appellants' claimed invention would have been obvious to one of ordinary skill in the art at the time of appellants' invention over the applied references. Accordingly, we sustain the aforementioned rejections.

Appellants state that claims 12 and 14 should be considered separately from claims 11 and 13 (brief, page 4). We limit our discussion to one claim in each group, i.e., claims 11 and 12. *See In re Ochiai*, 71 F.3d 1565, 1566 n.2,

[2] The examiner's reliance upon patents 3,699,184 to Taylor et al. and 5,229,464 to Erickson et al. is withdrawn in the examiner's answer (page 2).

37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1995).

*Rejection of claim 11*

Anderson (col. 2, lines 7-13), Bozzi (col. 2, lines 46-55; col. 6, lines 47-50) and Howell, Jr. (col. 5, lines 38-46; col. 7, lines 30-45) each disclose a process for making a water dispersion of an epoxy resin by dissolving an epoxy resin and an aminoplast in an organic solvent, and dispersing this mixture in water and a surfactant using a high shear mixer.

Appellants argue that their process does not use or require and organic solvent (brief, page 5). We are not persuaded by this argument because there is no language in appellants' claims which excludes an organic solvent, and because appellants' claims use the transition term "comprising", which opens the claims to include the step of dissolving the epoxy resin and aminoplast in an organic solvent before this mixture is combined with the

surfactant/water mixture. *See In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 802 (CCPA 1981).

During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the specification, and the claim language is to be read in view of the specification as it would be interpreted by one of ordinary

skill in the art. *See In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); *In re Okuzawa*, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976). As argued by appellants (brief, page 20), the description and examples in appellants' specification do not state that an organic solvent is used in the process. However, we find no disclosure in the specification which indicates that the claims, when interpreted in view of the specification, exclude the use of an organic solvent. Appellants specifically refer to the bottom of page 1 to the top of page 2 of their

specification (brief, page 2), but we find no language in this portion of the specification which indicates that an organic solvent may not be used in appellants' claimed process.

Appellants argue that the epoxy resins of Anderson, Howell, Jr. and Bozzi are very different from appellants' epoxidized polydiene polymers, and that the examiner makes an unsupported conclusion that it would have been obvious to one of ordinary skill in the art to substitute the epoxidized polydiene polymers of Erickson and Udipi for the epoxy resins of Anderson, Howell, Jr. and Bozzi (brief, page 5). Appellants argue that it

is not a foregone conclusion that a process which works with the epoxy resins of Anderson, Howell, Jr. and Bozzi will work with the epoxidized polydiene polymers of Erickson and Udipi (*see id*.).

As argued by the examiner (answer, page 5), the teachings by Erickson (col. 17, lines 8-9) and Udipi (col. 1, lines 30-33) that their epoxidized polydiene block polymers provide strong, flexible films would have motivated one of ordinary

skill in the art to use their polymers in the processes of Anderson, Howell, Jr. and Bozzi. In addition, the teachings pointed out by the examiner (answer, pages 6-8) by Anderson (col. 2, lines 14-17) that any resinous polyepoxide is useful in his process if it can be dissolved in an organic solvent of limited water solubility such that it is emulsifiable into an aqueous medium by means of a surfactant, and by Erickson (col. 12, lines 12-13) and Udipi (col. 3, lines 44-66) that their epoxidized polydiene block polymers can be used in both organic solvent systems and water dispersions, would have provided one of ordinary skill in the art with a reasonable expectation of success in using the Erickson and Udipi polymers in the processes of Anderson, Howell, Jr. and Bozzi wherein the epoxy resin is dissolved in an organic solvent and then is dispersed in water. Accordingly, we hold that the invention recited in appellants' claim 11 would have been *prima facie* obvious to one of ordinary skill in the art over the applied references. *See In re Vaeck*, 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); *In re Longi*, 759 F.2d 887, 892-93, 225 USPQ 645, 648 (Fed. Cir. 1985). Because appellants do not rely upon any evidence for overcoming such a *prima facie* case of obviousness, we conclude that the invention recited in appellants' claim 11 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103.

*Rejection of claim 12*

Appellants' claim 12 depends from claim 11 and recites that the epoxidized block polymer and aminoplast are partially prereacted before being added to the surfactant/water mixture.

The examiner points out (answer, page 8) that Howell, Jr. discloses heating a mixture of an epoxy resin and an aminoplast to 120-130EF (49-54EC) and that Anderson discloses heating such a mixture to 50-55EC (col. 4, lines 2-7). The examiner argues that because these temperatures are above the minimum temperature of

the temperature range of about 25EC to about 80EC within which appellants' polymer/aminoplast mixture is heated (specification, page 20, lines 17-20), the partial prereaction recited in appellants' claim 12 necessarily takes place during the heating steps of Howell, Jr. and Anderson.

Appellants merely point out the benefit of their partial prereacting (brief, page 6), but make no argument which is directed toward distinguishing over the prior art the process recited in their claim 12.

Because the examiner's argument is supported and is reasonable, and because appellants have provided no evidence or technical reasoning to the contrary, we conclude, based on the preponderance of the evidence, that the process recited in appellants' claim 12 would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103.

*DECISION*

The rejection of claims 11-14 under 35 U.S.C. § 103 over the combined teachings of Howell, Jr., Anderson, Bozzi, Erickson and Udipi is affirmed.

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

*AFFIRMED*

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|---|---|---|
| SHERMAN D. WINTERS<br>Administrative Patent Judge | ) | |
| JOHN D. SMITH<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| TERRY J. OWENS<br>Administrative Patent Judge | ) | |

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Application 08/389,521

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