

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 JOHN K. STEVENS

Appeal 2007-0158
Application 10/415,202
Technology Center 1700

Decided: June 15, 2007

Before CHUNG K. PAK, CATHERINE Q. TIMM, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 1-4, 6-9, 12, 13, and 15, the only claims pending in this application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2006).

The invention relates to a coating material for producing primers for protecting exposed surfaces, such as antistonechip primers for automobiles (Specification 1). Claims 1 and 3 are illustrative of the invention and are reproduced below:

Appeal 2007-0158
Application 10/415,202

1. An aqueous coating material comprising a binder comprising at least one epoxy resin and a curing agent comprising at least one polyamine wherein at least one of the at least one epoxy resin
 - (i) is present in a powder coating material, and
 - (ii) is present in fine dispersion in an aqueous dispersion comprising the at least one polyamine.
3. An aqueous coating material comprising a multicomponent system comprising
 - (A) a curing component comprising at least one polyamine-containing aqueous dispersion or solution and solid epoxy resin present in fine dispersion, and
 - (B) a binder component comprising at least one liquid epoxy resin-containing aqueous dispersion.

The Examiner relies on the following prior art references to show unpatentability:

Elmore	US 4,315,044	Feb. 9, 1982
Günter	US 4,555,412	Nov. 26, 1985
Sweet	US 5,461,090	Oct. 24, 1995

Prof. Dr. Artur Goldschmidt and Dr. Hans Joachim Streitberger, *Basics of Coating Technology* 243-46 (2003)

The Examiner made the following four grounds of rejection:

1. Claims 1, 2, 4, 6-9, 12, 13, and 15 under 35 U.S.C. § 102(b) as anticipated by Sweet;
2. Claims 1, 2, 7-9, 13, and 15 under 35 U.S.C. § 102(b) as anticipated by Gunter;
3. Claims 1, 2, 7-9, and 13 under 35 U.S.C. § 102(b) as anticipated by Elmore; and

4. Claim 3 under 35 U.S.C. § 103(a) as unpatentable over Elmore.

ISSUES

I. The Examiner contends that prior art solid epoxy resins are inherently in powder form and, therefore, meet the claim limitation of a “powder coating material.” Appellant contends that the claimed powder coating compositions are chemically and physically distinct from the prior art solid epoxy resins. The issue before us is: Has Appellant provided sufficient evidence to overcome the Examiner’s finding that Sweet, Gunter, and Elmore inherently disclose powder coating materials?

For the reasons discussed below, we answer this question in the affirmative.

II. The Examiner contends that Appellant’s aqueous coating material would have been obvious in view of Elmore’s disclosure of a mixture containing the same components. Appellant contends that the recitation of a “multicomponent system” in claim 3 patentably distinguishes over Elmore. The issue for us to decide is: Has Appellant shown that the claim language should be narrowly construed as limited to a coating material in which the curing component and binder component are physically separated?

For the reasons discussed below, we answer this question in the negative.

RELEVANT FINDINGS OF FACT

Claim Construction

- 1) “A dispersion is a mixture of particles suspended in a liquid.”

Kirk-Othmer Encyclopedia of Chemical Technology, Dispersions (2003).

- 2) In a first preferred embodiment, the coating material of the invention is a one-component system in which all reactive components, i.e., the epoxy resins and the polyamines, are present alongside one another. In this embodiment, it is preferable to use exclusively epoxy resins which are solid at room temperature and/or epoxy resin powder coating materials (Specification 3:32-38).
- 3) In a second preferred embodiment, the coating material of the invention is a multicomponent system, in particular a two-component system, comprising (A) at least one polyamine-containing aqueous dispersion or solution as curing component and (B) at least one epoxy resin-containing aqueous dispersion as a binder component, the solid epoxy resin and/or the epoxy resin powder coating material being present in fine dispersion in the curing component (A) (Specification 4:1-10).
- 4) “For the multicomponent systems of the invention, the curing component (A) and the binder component (B) are not mixed with one another until shortly before application” (Specification 11:1-4).
- 5) According to the Specification,

Irrespective of whether the coating material of the invention is a one-component system or a multicomponent system, it comprises, based on its solids, the solid epoxy resin and/or the epoxy resin powder coating material in an amount which corresponds preferably to from 2 to 30, more preferably from 3 to 25, and in particular from 4 to 20% by weight of epoxy resin as reactive component. Specification 4:15-22.
- 6) The Specification further provides that:

Where the solid epoxy resin is used alone, it is present in the coating material of the invention in an amount of from 2 to 30,

preferably from 3 to 25, and in particular from 4 to 20% by weight, based in each case on the solids of the coating material.

Where the epoxy resin powder coating material is used alone, it is present in the coating material of the invention preferably in an amount of from 5 to 30, more preferably from 6 to 25, and in particular from 7 to 20% by weight, based in each case on the solids of the coating material. Specification 4:23-33.

- 7) With respect to the epoxy resin powder coating material, the Specification teaches that the material “comprises at least one epoxy resin in an amount of at least 40, more preferably at least 45, and in particular at least 50% by weight, based in each case on the powder coating material” (Specification 4:35-38). According to the Specification, “[s]uch an amount of epoxy resin ensures that sufficient epoxy resin is introduced as a reactive component into the coating material by the powder coating material” (Specification 5:1-4).
- 8) The Specification discloses an Example in which an inventive two-component coating material was prepared by combining all curing and binder components and dispersing the mixture. The coating material was dispensed into a container and was said to show outstanding storage stability (Specification, Example 1).
- 9) Goldschmidt discloses techniques for manufacturing powder coatings. Goldschmidt teaches premixing the formulation ingredients, which include resin, crosslinker, pigment, and additives, followed by melting and homogenization in an extruder (Goldschmidt 243). Upon exiting the extruder, the melt is cooled, then finely ground and pulverized (Goldschmidt 244-245).

Prior Art

- 10) Elmore discloses methods of preparing stable aqueous epoxy dispersions (Abstract). The dispersions are prepared by admixing a polyamine curing agent with a stable epoxy dispersion comprising a water-immiscible monoepoxide reactive diluent in an aqueous epoxy resin dispersion (*see* col. 4, ll. 22-59).

ANALYSIS AND CONCLUSIONS

I. Has Appellant provided sufficient evidence to overcome the Examiner's finding that Sweet, Gunter, and Elmore inherently disclose powder coating materials?

The Examiner and Appellant agree that the applied prior art disclosures are limited to aqueous compositions containing solid, particulate epoxy resins (Answer 8, 10, and 11-12). Appellant contends that these compositions are chemically (and physically) distinct from the claimed composition in which the epoxy resin is present in a "powder coating material" (Reply 2). The Examiner argues that the language "powder coating material" fails to patentably distinguish over the prior art because "there is nothing in this language that *materially* sets apart the materials used in the instant invention from the materials used in the prior art" (Answer 9). Thus, in order to determine whether the claims are anticipated, we must first ascertain the scope and meaning of the term "powder coating material."

During prosecution, claims are given their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *See In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004). *See also, Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 75 USPQ2d 1321, 1326 (Fed. Cir.

2005)(citing, *inter alia*, *In re Nelson*, 280 F.2d 172, 181, 126 USPQ 242, 251 (CCPA 1960) (“The descriptions in patents are not addressed to the public generally, to lawyers or to judges, but, as section 112 says, to those skilled in the art to which the invention pertains or with which it is most nearly connected.”)). Appellant contends that one of ordinary skill in the art would understand the term “powder coating material” as referring to a “solid, particulated coating material having a plurality of components in admixture in each particle” (Br. 4-5). By contrast, one of ordinary skill in the art would understand the term “solid epoxy resin” as referring to particles containing an epoxy resin and nothing more (Reply 2).

Appellant relies on the Specification as evidence that the terms “powder coating materials” and “solid epoxy resins” clearly designate two different types of materials. Appellant points out that the Specification references separate publications for examples of suitable solid epoxy resins and powder coating materials for use in the invention (Br. 2). *See* Specification 5:13-6:3. Appellant also notes that the Specification states that the epoxy resin powder coating material generally includes from 40 up to 80% by weight of epoxy resin and, therefore, necessarily includes materials other than epoxy resin (Br. 2). *See* Findings of Fact 5, 6, and 7. Appellant further relies on Goldschmidt as evidence that “powder coating” is a term of the coating arts that refers to a mixture of coating materials that is homogenized in a melt, then solidified and granulated (Br. 4) to produce particles of the powder material, each of which includes epoxy resin as well as other additives (*see* Reply 2-3).

We find Appellant’s arguments and evidence persuasive in establishing that the claim term “powder coating material” is properly

interpreted as a “solid, particulated coating material having a plurality of components in admixture in each particle.” We further find that the facts and reasons relied on by Appellant establish a chemical and physical difference between the claimed “powder coating material” dispersion and the prior art “solid epoxy resin” dispersions. Therefore, we conclude that the Examiner has failed to establish a *prima facie* showing of anticipation. *See In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999)(Anticipation under 35 U.S.C. § 102 requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."). The rejections of the claims as anticipated by Sweet, Gunter, and Elmore are reversed.

II. Has Appellant shown that the claim language should be narrowly construed as limited to a coating material in which the curing component and binder component are physically separated?

Appellant argues that “[c]laim 3 is patentable over the Elmore patent because the Elmore patent fails to disclose or suggest a multicomponent system (as that term is used in the present claim and specification) or a system comprising both a solid epoxy dispersion in one component and a liquid epoxy in a second component” (Br. 7).

The patentability analysis begins with the legal question “what is the invention claimed?” *See Panduit v. Dennison Mfg. Co.*, 774 F.2d 1082, 1093, 227 USPQ 337, 344 (Fed. Cir. 1985). In this case, the claimed invention is directed to an aqueous coating material comprising two components: a curing component and a binder component. The claim language itself does not preclude the components from being mixed. Moreover, contrary to Appellant’s contention, we see no basis in the

Appeal 2007-0158
Application 10/415,202

Specification for limiting the claimed invention to a coating material in which components (A) and (B) are physically separated. For example, the Specification discloses that “for the multicomponent systems of the invention, the curing component (A) and the binder component (B) are not mixed with one another until shortly before application” (Specification 11:1-4). However, the Specification does not disclose that upon mixing components (A) and (B), the aqueous coating material is no longer a “multi-component system.” In fact, in Example 1 of the Specification, an inventive two-component coating material is prepared by combining all curing and binder components. As pointed out by the Examiner “[m]ost epoxy compositions are capable of being one-component or multi-component. Furthermore, two-component compositions essentially become one-component systems at the time of application and curing. The separation of these materials is merely a mechanism of controlling shelf-life” (Answer 13).

Accordingly, we find that Appellant has failed to establish that the term “multi-component system” patentably distinguishes over the mixture of materials disclosed in Elmore (*see* Finding of Fact 10.) The rejection of claim 3 as obvious in view of Elmore is affirmed.

ORDER

The rejection of claims 1, 2, 4, 6-9, 12, 13, and 15 under 35 U.S.C. § 102(b) as anticipated by Sweet is reversed.

The rejection of claims 1, 2, 7-9, 13, and 15 under 35 U.S.C. § 102(b) as anticipated by Gunter is reversed.

The rejection of claims 1, 2, 7-9, and 13 under 35 U.S.C. § 102(b) as anticipated by Elmore is reversed; and

Appeal 2007-0158
Application 10/415,202

The rejection of claim 3 under 35 U.S.C. § 103(a) as unpatentable over Elmore 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) (2006).

AFFIRMED-IN-PART

clj

Oppedahl Patent Law Firm LLC - VAI
P.O. Box 4850
Frisco, CO 80443-4850