

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

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ANDREAS KAPLAN,  
MANFRED HOPPE and EBERHARD KINKELIN

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Appeal No. 1998-2000  
Application 08/469,171

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HEARD: March 20, 2001

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

WARREN, *Administrative Patent Judge*.

*Decision on Appeal and Opinion*

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner finally rejecting claims 1, 2, 7 through 9, 11 through 14 and 17 through 21, and refusing to allow claim 22 as amended subsequent to the final rejection.<sup>1,2</sup>

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<sup>1</sup> See the amendments of June 6, 1995 (Paper No. 5), April 9, 1996 (Paper No. 6½), October 13, 1995 (Paper No. 7), April 9, 1996 (Paper No. 10), November 4, 1996 (Paper No. 13), and August 13, 1997 (Paper No. 17).

<sup>2</sup> We observe that while claim 1 specifies  $\beta$ -hydroxy alkyl amide as the only cross-linking agent for the binder resin, claim 12 states “[i]n a process. . . mixing the binder resin, the at least one cross-linking agent from the group of *polyfunctional epoxy compounds* and  $\beta$ -hydroxy alkyl amides . . . *each in*

We have carefully considered the record before us, and based thereon, find that we cannot sustain either of the two grounds of rejection advanced by the examiner on appeal (answer, pages 3-6).<sup>3</sup>

It is well settled that in making out a *prima facie* case of non-compliance with 35 U.S.C. § 112, second paragraph, because the claims are indefinite for failing to particularly point out and distinctly claim the subject matter which appellants regard as the invention,<sup>4</sup> the examiner must establish that when the language of the appealed claim is considered as a whole as well as in view of the specification as it would be interpreted by one of ordinary skill in the art, the claim in fact fails to set out and circumscribe a particular area with a reasonable degree of precision and particularity. *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). In other words, the operative standard for determining whether § 112, second paragraph, has been complied with is "whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." *See The Beachcombers, Int'l. v. WildeWood Creative Prods.*, 31 F.3d 1154, 1158, 31 USPQ2d 1653, 1656 (Fed. Cir. 1994), *quoting Orthokinetics Inc v. Safety Travel Chairs Inc.*, 806 F.2d 1565, 1576, 1 USPQ2d 1081, 1088 (Fed. Cir. 1986). We fail to find in the examiner's stated position (answer, pages 4-5) any reason why one of ordinary skill in this art would not understand what is claimed in claim 2 by the use of the term "tribo-additives" in light of the disclosure in the specification

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*accordance with claim 1 . . .*" (emphasis supplied). Any further examination of claim 12 should include consideration of whether this claim complies with 35 U.S.C. § 112.

<sup>3</sup> We observe that the examiner stated in the advisory action of September 10, 1997 (Paper No. 19) that appellants' response overcame "the 112 rejections of claims 20, 21 and 22." The examiner specifically in the answer (page 2), withdrew the "112 rejection of claim 20" which apparently involved 35 U.S.C. § 112, fourth paragraph (final rejection of March 13, 1997 (Paper No. 15; page 3)). The examiner has, however, maintained the ground of rejection of "[c]laims 2, 21 and 22 . . . under 35 U.S.C. § 112, second paragraph," but has explained the rejection only with respect to the claim term "tribo additives" that appear only in claim 2 (answer, page 2; see final rejection (Paper No. 15; page 2)). The examiner has not set forth in the answer (see pages 3-4) the criticism directed to claims 21 and 22 in the final rejection (Paper No. 15; pages 2-3).

<sup>4</sup> *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ 2d 1443, 1444 (Fed. Cir. 1992), *citing In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) ("As discussed in *In re Piasecki*, the examiner bears the initial burden, on review of the prior art *or on any other ground*, of presenting a *prima facie* case of unpatentability. [Emphasis supplied.]").

that the claimed powder coatings contain “additives . . . which are customary for producing and using powder coating,” *inter alia*, “tribo-additives,” and are applied by “methods customary for powder coatings, for example by means of electrostatic spraying devices such as the . . . tribo system” (page 4, line 27, to page 5, line 1, and page 5, lines 20-24). Indeed, the examiner explains only that even though it may be assumed that “tribo-additives” are known, “the term is still indefinite since one does [sic, not?] readily recognize what additives are embraced by this term” (answer, page 4). The fact that extended cogitation may be necessary for one skilled in this art to comprehend the entire scope of this term does not render the same *prima facie* indefinite. *See, e.g., In re Gardner*, 427 F.2d 786, 788, 166 USPQ 138, 140 (CCPA 1970) (“Breadth is not indefiniteness.”). Accordingly, we reverse this ground of rejection with respect to claim 2, containing the term “tribo-additive,” because the examiner has not carried the burden of establishing a *prima facie* case of non-compliance with § 112, second paragraph, and with respect to claims 21 and 22 because these claims do not contain the subject term.<sup>5</sup>

With respect to the rejection of all of the appealed claims under 35 U.S.C. § 103, it is well settled that in order to establish a *prima facie* case of obviousness, “[b]oth the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant’s disclosure.” *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991), citing *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Thus, a *prima facie* case of obviousness is established by showing that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in the art would have led that person to the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellant’s disclosure. *See generally, Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Oetiker*, 977 F.2d 1443, 1447-48, 24 USPQ2d 1443, 1446-47 (Fed. Cir. 1992) (Nies, J., concurring); *Vaeck, supra*; *Dow Chem., supra*; *In re Warner*, 379 F.2d 1011, 1014-17, 154

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<sup>5</sup> *See above* note 2.

USPQ 173, 175-78 (CCPA 1967). We agree with appellants that the examiner has failed to carry his burden of making out a *prima facie* case of obviousness with respect to the claimed invention.

The principal issue is whether one of ordinary skill in this art would have found in the combined teachings of De Jongh et al. (De Jongh), Belder et al. (Belder) and Kapilow et al. (Kapilow)<sup>6</sup> an objective teaching, suggestion or motivation to use at most 10 mol-parts of isophthalic acid in a linear carboxylic-functional polyester binder resin containing, *inter alia*, a further dicarboxylic acid, for a powder coating system, as specified in claim 1 (answer, pages 4-6). The examiner contends that “the specific amount [of isophthalic acid required by claim 1] is not recited [in the references] but would have been found obvious . . . via routine experimentation” because the “art indirectly suggests such a manipulation” (*id.*, page 7). The examiner finds that Belder would have provided the suggestion and motivation to manipulate the amount of isophthalic acid and other dicarboxylic acid to obtain a good balance of weathering and mechanical properties (*id.*, page 5) and concludes that “[i]n the case of . . . De Jongh, one [of ordinary skill in the art] would lower the amount of isophthalic acid to improve the mechanical properties, of the polyester but still retain weathering properties” (*id.*, page 6). Appellants submit, *inter alia*, that Belder discloses that the polyester resin must contain “at least 15 mol % of isophthalic acid” as seen from the reference abstract and col. 1, lines 59-60, and teaches that the use of higher amounts of isophthalic acid is preferred, and thus, in the absence of their invention, one of ordinary skill in the art “would not have lowered the concentration of isophthalic acid below 15 mol % in view of the disclosure of Belder” (brief, page 9, emphasis in original deleted; see also reply brief, pages 3-6).

Upon carefully considering the record, we must agree with appellants. We find that while De Jongh does not limit the amount of isophthalic acid in the polyester resin in generically disclosing the use of a choline compound in powder coating compositions containing an epoxide cross-linking agent, one of ordinary skill in this art would have found in Belder the teaching that the amount of this acid should not be lower than 15 mol % in consideration of the properties of the coating, including weathering and mechanical strength. We fail to find in the record any explanation by the examiner why one of ordinary

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<sup>6</sup> The references relied on by the examiner are listed at page 3 of the answer.

skill in this art would have disregarded this specific directive in Belder and selected a range of isophthalic acid below that taught to be necessary by the reference. *See In re Sebek*, 465 F.2d 904, 907, 175 USPQ 93, 95 (CCPA 1972) (“Where, as here, the prior art disclosure suggests the outer limits of the range of suitable values, and that the optimum resides within that range, and where there are indications elsewhere that in fact the optimum should be sought within that range, the determination of optimum values outside that range may not be obvious.”); *cf. In re Geisler*, 116 F.3d 1465, 1470, 43 USPQ2d 1362, 1366 (Fed. Cir. 1997) (“The statement in Zehender that ‘[i]n general, the thickness of the protective layer should not be less than about [100 Angstroms]’ falls far short of the kind of teaching that would discourage one of ordinary skill in the art from fabricating a protective layer of 100 Angstroms or less.”).

Thus, we reverse this ground of rejection because it is manifest that the only direction to appellants’ claimed invention as a whole on the record before us is supplied by appellants’ own specification. *See Dow Chem.*, 837 F.2d at 473, 5 USPQ2d at 1531-32.

The examiner’s decision is reversed.

*Reversed*

JOHN D. SMITH	)	
Administrative Patent Judge	)	
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	)	
CHARLES F. WARREN	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
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TERRY J. OWENS	)	
Administrative Patent Judge	)	

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