

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CARSTEN BAUMANN, DIETER FEUSTEL  
and NORBERT HUEBNER

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Appeal No. 2000-0478  
Application No. 08/913,380

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ON BRIEF

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Before KRATZ, TIMM and DELMENDO, Administrative Patent Judges.  
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 11-15. Claims 16-24, which are all of other claims pending in this application, have been indicated as allowable by the examiner.

BACKGROUND

The subject matter of the appealed claims relates to water soluble nonionic polyurethanes described as a reaction product of

three listed reactant components. Appellants state that "claims 11-15 stand or fall together." Accordingly, we select claim 11 as the representative claim on which we shall decide this appeal. Claim 11 is reproduced below.

11. Water-soluble nonionic polyurethanes useful as protective colloids for the polymerization of olefinically unsaturated monomer in aqueous medium wherein said water-soluble nonionic polyurethanes consist essentially of the reaction products of;

- a) organic polyisocyanates with
- b) water-soluble polyalkylene glycols containing at least 70% by weight of ethylene glycol groups and with
- c) polyhydric branched alcohols containing at least three hydroxyl groups per molecule, and wherein, the equivalent ratio of b) to c) is in the range from 1:0.01 to 1:10 and the equivalent ratio of [b) + (c)] to a) is in the range from 1:0.6 to 1:0.85.

The sole prior art reference of record relied upon by the examiner is:

Georgoudis et al. (Georgoudis)            3,660,010            May 02, 1972

Claims 11-15 stand rejected under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Georgoudis.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellants and the examiner concerning the issues before us on this appeal.

OPINION

Having carefully considered each of appellants' arguments set forth in the brief and reply brief, appellants have not persuaded us of reversible error on the part of the examiner. Accordingly, we will affirm the examiner's rejections for substantially the reasons set forth by the examiner in the answer. We add the following for emphasis.

Representative claim 11 calls for water soluble nonionic polyurethanes obtained as the reaction product of a) organic polyisocyanates, b) water-soluble polyalkylene glycols containing at least 70 weight percent glycol groups and c) polyhydric branched alcohols. Ranges of equivalent ratios of reactant component (b) relative to component (c) and components (b) plus (c) relative to component (a) are specified in the representative claim.

Because appellants claim a product in terms of the process for making same, we determine the appealed claims are in product-by-process form. Thus, the patentability of the claimed invention is determined based on the product itself, not on the method of making it. See *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) ("If the product in a product-by-process claim is the same as or obvious from a product of the

prior art, the claim is unpatentable even though the prior art product was made by a different process." ). Whether a rejection is under 35 U.S.C. § 102 or § 103, when appellants' product and that of the prior art appears to be identical or substantially identical, the burden shifts to appellants to provide evidence that the prior art product does not necessarily or inherently possess the relied upon characteristics of appellants' claimed product. See *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980); *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-434 (CCPA 1977); *In re Fessmann*, 489 F.2d 742, 745, 180 USPQ 324, 326 (CCPA 1974). The reason is that the Patent and Trademark Office is not able to manufacture and compare products. See *Best*, 562 F.2d at 1255, 195 USPQ at 434; *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Like appellants' product polyurethanes, the examiner has found that Georgoudis (page 2, lines 19-25) describes water soluble polyurethanes made as reaction products of organic isocyanates with polyalkylene glycols and other polyols, such as polyethylene ether glycol (a polyalkylene glycol)<sup>1</sup> and

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<sup>1</sup> See the definition of polyethylene glycol at page 706 of Hawley, The Condensed Chemical Dictionary, (1975). Thus, the polyethylene glycol employed in composition B of Example 3 of Georgoudis comprises essentially 100 weight percent ethylene

trimethylolethane (a polyhydric branched alcohol). See column 1, line 40 through column 2, line 17 and composition B of Example 3 of Georgoudis and page 3 of the examiner's answer. As further found and explained by the examiner (answer, page 4), the equivalent ratios of reactants in composition B of Example 3 of Georgoudis are embraced by the ranges of equivalent ratios of reactants as called for in representative claim 11. Indeed, we further note that Georgoudis expresses a broad range (1.01 to 2)<sup>2</sup> and preferred range (1.05 to 1.2)<sup>3</sup> of the proportionality of the hydroxyl groups to isocyanate groups in the reactants used that overlap appellants' range. Given that commonality of reactants, we agree with the examiner that the claimed polyurethane product

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glycol groups, an amount within the claimed "at least 70% by weight range" as implicitly found by the examiner in rejecting the appealed claims as anticipated by Georgoudis.

<sup>2</sup> The broad equivalent ratio range reported in Georgoudis corresponds to a range of 1 (hydroxyl group):0.5 to 0.99 (isocyanate groups), a range that overlaps the range of 1:0.6 to 0.85 in terms as recited in appellants' claim 11.

<sup>3</sup> The preferred equivalent ratio reported in Georgoudis corresponds to a range of 1 (hydroxyl group):0.83 to 0.95 (isocyanate groups), a range that not only overlaps the range of 1:0.6 to 0.85 in terms as recited in appellants' claim 11 but that includes an endpoint (0.83) wholly within the claimed range.

is anticipated by and/or rendered *prima facie* obvious by the reaction product of Georgoudis.

Against this background, appellants' general contentions set forth in the reply brief (pages 2 and 3) that Georgoudis is silent regarding the claimed composition requirements of a specified quantity of ethylene glycol groups and particular equivalent ratios hardly qualifies as a specific refutation of the examiner's particular factual determinations as to the equivalent ratios of reactants set forth in composition B of Example 3 of Georgoudis. In the absence of specific and convincing countervailing argument by appellants<sup>4</sup>, we shall accept the examiner's particularized factual determinations set forth in the answer that make clear that Georgoudis discloses a polyurethane made from reactants and amounts thereof that correspond to the herein claimed reactant components and relative amounts thereof. See *In re Fox*, 471 F.2d 1405, 1407, 176 USPQ 340, 341 (CCPA 1973); *In re Boon*, 439 F.2d 724, 727-28, 169 USPQ

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<sup>4</sup> Appellants also argue that Georgoudis adds a crosslinking agent to the polyurethane. However, representative claim 11 is drawn to the polyurethane, not any subsequent use thereof that may exclude the subsequent crosslinking reaction taught by Georgoudis (column 3, lines 26-53). Therefore, that line of argument is unpersuasive.

231, 234 (CCPA 1971); *In re Ahlert*, 424 F.2d 1088, 1091-92, 165 USPQ 418, 420-21 (CCPA 1970).

Consequently, we shall sustain the examiner's rejections based on this record.

CONCLUSION

The decision of the examiner to reject claims 11-15 under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Georgoudis 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

PETER F. KRATZ	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
CATHERINE TIMM	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
ROMULO H. DELMENDO	)	
Administrative Patent Judge	)	

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APPEAL NO. - JUDGE KRATZ  
APPLICATION NO.

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DECISION: **ED**

Prepared By:

**DRAFT TYPED:** 03 Jun 03

**FINAL TYPED:**