

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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GUNTHER MUELLER, HERBERT FINK
and JOACHIM HEYNE

Appeal No. 1998-2425
Application No. 08/656,871

HEARD: April 25, 2001

Before, KIMLIN, KRATZ and JEFFREY T. SMITH, Administrative Patent Judges.

KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 16-24 and 35, as amended after final rejection. Claims 25-34, which are the only other claims that remain pending in this application, stand withdrawn from further consideration by the examiner as drawn to a non-elected invention (answer, page 1).

BACKGROUND

Appellants' invention relates to a pressure sensitive adhesive comprising a dispersion formed by a particular core and shell polymerization method that includes a step of polymerizing an aqueous emulsion consisting of butyl acrylate and both an anionic and a non-ionic emulsifier in the presence of a water-soluble initiator. That butyl acrylate polymerization step forms the core of the product adhesive according to appellants. See, e.g., brief, pages 5 and 6 and reply brief, page 2. As generally explained by appellants, the core is free of acid with the shell of the core-shell copolymer being formed by the step of emulsifying-in (meth)acrylic acid to form a copolymer of butyl acrylate and (meth)acrylic acid. See, e.g., reply brief, page 2. Appealed claim 16 is reproduced below.

16. A pressure sensitive adhesive comprising a dispersion containing a copolymer (CP) comprised of units of butyl acrylate and (meth)acrylic acid, prepared by a method consisting essentially of:

under semi-continuous or batch polymerization conditions, polymerizing an aqueous emulsion (EM) consisting of butyl acrylate, an anionic emulsifier and a non-ionic

emulsifier, in the aqueous phase, under heating and in the presence of at least one water-soluble initiator (IN) of formula (I)



where M represents an alkali metal cation, and

R_1 represents an anion of a peroxyacid or azo-group-containing acid,

wherein said (IN) is present in an amount of 0.5-1.5 wt.% based on weight of the monomers;

emulsifying-in (meth)acrylic acid while maintaining an elevated reaction temperature such that the ratio of butyl acrylate to (meth)acrylic acid ranges from 99.5:0.5 to 90:10 parts by weight; and

adding a second redox initiator (RI) to complete the polymerization and wherein said process is carried out under conditions of core and shell polymerization.

The sole prior art reference of record relied upon by the examiner in rejecting the appealed claims is:

Kowalski et al. (Kowalski) 4,427,836 Jan. 24,
1984

Claims 16-24 and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kowalski.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the prior art reference as applied by the examiner, and to the opposing viewpoints advanced by the appellants and

the examiner. As a consequence of our review, we determine that the examiner has not established a prima facie case of obviousness. Accordingly, we will not sustain the stated rejection. Our reasoning follows.

Since the appealed claims are in product-by-process format, certain principles of patent jurisprudence apply. We note that the patentability of a product is a separate consideration from that of the process by which it is made. See In re Thorpe, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985). Moreover, determination of the patentability of a product-by-process claim is based on the product itself. See In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Also, we observe that in proceedings before the U.S. Patent and Trademark Office, claims are interpreted by giving words their broadest reasonable meanings in their ordinary usage, taking into account the written description found in the specification. See In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

Applying these principles, we note that claim 16, the sole independent claim on appeal, employs closed "consisting of" language in describing the adhesive product formation step of polymerizing an aqueous emulsion of "butyl acrylate, an anionic emulsifier and a non-ionic emulsifier . . . in the presence of at least one water-soluble initiator" Given that required polymerization step conducted solely in the presence of the specified components and the required "emulsifying-in (meth)acrylic acid . . ." and "adding a second redox initiator (RI) to complete the polymerization . . ." steps of claim 16, we determine that the claimed product preparation method is limited to a method wherein the (meth)acrylic acid is phased in after the first mentioned polymerization of claim 16 has been conducted. Otherwise, the "consisting of" language employed with respect to the first mentioned polymerization of claim 16 would be violated. Moreover, this claim construction is consistent with the core and shell polymerization called for in that claim and with appellants' specification. See, e.g., pages 5-7, page 11, lines 3 and 4 and the Examples. Hence, it would be reasonable to expect that the product of claim 16 and the claims

depending therefrom would have a core formed of the polymerized butyl acrylate that is at least partially encased by a shell made of a copolymer of the phased in (meth)acrylic acid and butyl acrylate as urged by appellants in their briefs.

On the other hand, Kowalski (abstract, lines 1-8) is directed to:

the production and use of water-insoluble particulate heteropolymers made by sequential emulsion polymerization in dispersed particles of which a "core" of a polymeric acid is at least partially encased in a "sheath" polymer that is permeable to a volatile base, such as ammonia or an organic amine, adapted to cause swelling of the core by neutralization.

As described at column 5, line 9 through column 8, line 9 and column 8, line 53 through column 9, line 2 of Kowalski, the core polymer of the applied reference is formed by polymerizing one or more acid monomers with or without a plethora of monoethylenically unsaturated monomers, such as butyl acrylate. Thus, the product of Kowalski would reasonably be expected to have a polymerized acid monomer present throughout the core since an acid monomer is used throughout the formation of the core of Kowalski.

We do not agree with the examiner's position (answer, page 3) that: "[t]he core-shell polymers of [the] claims are generic to those disclosed by [the] references and would possess similar properties." We recognize that the examiner bears a lesser burden of proof to establish a prima facie case of obviousness for product-by-process claims.¹ However, we determine, for reasons noted above, that the examiner's broad conclusionary statements simply do not establish that the cited prior art discloses a product that can reasonably be said to be either identical with or only slightly different than the product of the appealed product-by-process claims. See In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

For the foregoing reasons, we find that the examiner has not established a prima facie case of obviousness on this record.

CONCLUSION

¹In re Fessman, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974).

The decision of the examiner to reject claims 16-24 and 35 under 35 U.S.C. § 103 as being unpatentable over Kowalski is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
PETER F. KRATZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY T. SMITH)	
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APPEAL NO. - JUDGE KRATZ
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DECISION: **ED**

Prepared By:

DRAFT TYPED: 29 Jan 02

FINAL TYPED: