

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS D. KENNEDY, GORDON V. SHARPS
and RICHARD K. WATSON

Appeal No. 1997-2234
Application 08/254,345

HEARD: JULY 13, 2000

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

JOHN D. SMITH, **Administrative Patent Judge.**

DECISION ON APPEAL

This is an appeal pursuant to 35 U.S.C. § 134 from the final rejection of claims 28, 31, 33-39, and 62-69. In the answer, the examiner indicated that claim 31 would be allowable if rewritten in independent form. Thus, remaining for our consideration is the appeal from the rejections of claims 28, 33-39, and 62-69.

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Claim 28 is representative and is reproduced¹ below:

28. A multilayer film comprising:

an outer sealant layer comprising at least one member selected from the group consisting of ionomer, carboxyl-modified polyethylene, and ethylene/acid copolymer, the outer layer having a thickness of from about 1 percent to 20 percent, based on a total thickness of the multilayer film;

a core seal-assist layer comprising a composition comprising:

(A) a first component comprising at least one member selected from the group consisting of polyethylene homopolymer, ethylene/alpha-olefin copolymer, ethylene/vinyl acetate copolymer, and ethylene/acrylate copolymer, and

(B) a second component comprising at least one member selected from the group consisting of elastomer, plastomer, ionomer, and carboxyl-modified polyethylene;

wherein the first component is chemically different from the second component.

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

¹ Claim 28 is incorrectly reproduced in appellants' brief. See the amendment filed on September 5, 1995 entered as Paper No. 10.

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Norpoth et al. (Norpoth) 5,298,326 March 29, 1994

Appealed claims 28, 36-39, and 62-69 stand rejected under 35 U.S.C. § 102(e) as anticipated by Norpoth. All appealed claims stand rejected under 35 U.S.C. § 103 as obvious over Norpoth.

OPINION

Having carefully considered the record herein inclusive of the originally filed specification, originally filed claims, and the amendments filed January 13, 1995 and September 5, 1995, we find that the claims on appeal are unclear to the extent that the determination of whether the herein claimed subject matter is either anticipated or rendered obvious by the prior art disclosures is not possible without considerable speculation and assumptions regarding the meaning and interpretation of the terms (specifically the term "plastomer") employed in the claims. Accordingly, we procedurally reverse the stated prior art rejections of the appealed claims. See In re Steele, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962).

Appellants claim a multilayer film comprising an outer sealant layer and a core seal-assist layer from which low temperature, strong seals can be made which are comparable to an ionomer to ionomer seal. See the brief at page 7, second paragraph and the abstract of the disclosure. Appellants' outer

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sealant layer has a thickness of from about 1 percent to 20 percent, based on the total thickness of the multilayer film, and may be comprised of, inter alia, an ionomer. Appellants' core seal-assist layer is comprised of first and second components wherein the first component may be, inter alia, an ethylene/vinyl acetate copolymer and the second component may be, inter alia, a plastomer.

The applied prior art reference to Norpoth describes an example of a multilayer film having an outer layer comprised of "IONOMER" which has a thickness of 19.89 percent, based on the total thickness of the multilayer film, and a core layer comprised of an ethylene/vinyl acetate copolymer first component and a second component of a linear ethylene 1-octene copolymer (i.e., an ethylene/alpha-olefin copolymer commonly referred to as linear low density polyethylene (LLDPE)) having a density of 0.920 g/cc (EAO-1 sold as Dowlex 2045.03 by Dow). See Norpoth's example 13 at column 11 and column 5, lines 57-61. Because appellants' specification indicates that the term "plastomer" includes a homogeneous ethylene/alpha olefin copolymer having a density of from "about 0.86 to 0.91" and because Norpoth indicates that ethylene-alpha olefin polymers (such as the exemplified higher alpha olefin Dowlex 2045-03) "have a density

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in the range from about 0.860 g/cc to about 0.940 g/cc, more preferably in the range of from about 0.870 g/cc to about 0.920 g/cc" (column 5, lines 57-61 and column 7, lines 33-37), the examiner argues that Norpoth's ethylene alpha-olefin polymers, inclusive of the preferred and exemplified Dowlex 2045-03 polymer, "read on" appellants' claimed "plastomer" component. Thus, an issue of concern raised by the prior art rejections is whether the claimed term, "plastomer", is effective to distinguish the appealed subject matter from the prior art.

We give the language in question in appellants' claims, i.e., the term "plastomer", its broadest reasonable interpretation consistent with appellants' specification. See In re Zeltz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). Appellants' specification, however, contains an essentially inexplicable, inconsistent, nonlimiting definition for the term "plastomer". Thus, as stated by appellants in their specification beginning at page 10, line 25:

As used herein, the term "plastomer" refers to any of a family of thermoplastic-elastomeric, styrene/butadiene copolymers whose molecules have a radial or star structure in which several polybutadiene chains extend from a central hub, with a polystyrene block at the outward end of each segment. Preferably, the plastomer comprises homogeneous ethylene/alpha olefin copolymer; more preferably, homogeneous ethylene/alpha-olefin copolymer having a density of from about 0.86 to 0.91;

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still more preferably, homogeneous ethylene/alpha-olefin copolymer having a density of from about 0.86 to 0.879. As used herein, the term plastomer is inclusive of such copolymers regardless of whether the copolymer is cured or uncured.

At pages 24-26 of appellants' specification, appellants provide further definitions for the phrase "homogeneous polymer", and based on these definitions appellants argue that the claim term "plastomer" is inclusive of homogeneous² ethylene/alpha olefin copolymers, but not inclusive of heteogeneous ethylene/alpha-olefin copolymers, such as the Dowlex 2045-03 polymer. See the brief at page 15. We point out, however, that appellants' definition of a "plastomer" at page 10, quoted above, does not expressly exclude "heterogeneous" polymers, but is simply

² Consistent with appellants' statement that the phrase "homogeneous polymer" refers to polymerization reaction products of relatively narrow molecular weight distribution (specification, page 24, lines 5-7), we note that all linear low density polyethylene (LLDPE) resins are characterized as narrow MWD copolymers. See Handbook of Plastic Materials and Technology., Edited by Irvin I. Rubin, John Wiley & Sons, Inc., pps 311-15, c 1990, copy attached. With respect to appellants' disclosure in their specification at page 24, lines 5-13 that "homogeneous" polymers are typically prepared using metallocene catalysts, we note that U.S. Patent No. 5,462,807 issued to Halle et al. (Halle) on October 31, 1995 based on an application filed August 20, 1993, discloses that certain polymers derived from metallocene catalysts "surprisingly heat seal extremely well" to ionomers. See the abstract of Halle. However, Halle does not refer to these polymers as "plastomers". A copy of Halle is attached.

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inclusive of a family of styrene/butadiene copolymers and a different family of "preferably" homogeneous ethylene/alpha-olefin copolymers. Based on appellants' nonlimiting and inherently inconsistent and confusing definition of the term "plastomer", one can only speculate as to whether or not the terminology in the appealed claims referring to a "plastomer" component covers prior art polymers such as Norpoth's exemplified Dowlex 2045-03 ethylene 1-octene copolymer, which is "commonly referred to" as linear low density polyethylene (LLDPE). See Norpoth at column 5, lines 60-61.

Under the circumstances recounted above, it is our view that the claims on appeal, as well as allowable claim 31, do not define the metes and bounds of the invention with a reasonable degree of precision and particularity. Therefore, pursuant to our authority under 37 CFR § 1.196(b), we enter a new rejection against the appealed claims as well as against claim 31 under 35 U.S.C. § 112, second paragraph. We procedurally reverse the stated prior art rejections, because we consider the appealed claims to be sufficiently indefinite that application of the prior art to the claims is not possible without considerable speculation and assumptions.

This decision contains a new ground of rejection pursuant to

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37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)). 37 CFR § 1.196(b) provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

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37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

REVERSED, 37 CFR 1.196(b)

JOHN D. SMITH)	
Administrative Patent Judge)	
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CHARLES F. WARREN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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ROMULO H. DELMENDO)	
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