

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte JOHN CHU CHEN*

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Appeal 2007-1067  
Application 10/108,793  
Technology Center 1700

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Decided: July 17, 2007

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Before PETER F. KRATZ, CATHERINE Q. TIMM, and LINDA M. GAUDETTE, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the Examiner's rejection of claims 1-4, 6, 10-14, and 20-28. The appealed claims have been twice rejected. Claims 7-9 and 15-19, the only other claims that remain pending in this application, are withdrawn from further consideration by the Examiner. We have jurisdiction pursuant to 35 U.S.C. §§ 6 and 134.

Appellant's invention is directed to a thermoplastic composition including ethylene acid copolymers (ionomer) that is said to have a balance of high softness (low compression) and high resilience (high restitution coefficient). Also, a golf ball, or various parts thereof (covers, cores, centers, mantles, intermediate layers), that include the allegedly inventive copolymer composition are included in the claimed subject matter. The copolymers are at least partially neutralized, and are made from ethylene and two co-monomers. One co-monomer is an alpha, beta ethylenically unsaturated carboxylic acid including 3 to 8 carbon atoms. The other is a softening co-monomer that allegedly disrupts the polymer crystallinity, such as alkyl acrylate or alkyl methacrylate wherein the alkyl groups have 1-8 carbon atoms. Claim 1 is illustrative and reproduced below:

1. A thermoplastic composition comprising E/X/Y copolymers where E is ethylene, X is a C<sub>3</sub> to C<sub>8</sub> α,β ethylenically unsaturated carboxylic acid, and Y is a softening comonomer selected from alkyl acrylate and alkyl methacrylate wherein the alkyl groups have from 1-8 carbon atoms, wherein
  - a. the E/X/Y copolymer prior to neutralization has a melt index measured in accord with ASTM D-1238, condition E, at 190 °C using a 2160 gram weight of at least 75 gram per ten minutes,
  - b. X is about 2-30 wt.% of the E/X/Y copolymer and Y being about 17-40 wt.% of the E/X/Y copolymer, and
  - c. at least 55% of X is neutralized by one or more alkali metal, transition metal, or alkaline earth metal cations;

said neat E/X/Y copolymer, after neutralization, having an Atti compression and a coefficient of restitution (COR) measured at 125 ft/sec, wherein the

Atti compression is less than or equal to about 1143(COR)-688 and the COR is between about 0.06 about 0.74.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

Hagman	US 5,567,772	Oct. 22 1996
Hagman	US 5,691,418	Nov. 25, 1997
Chen	WO 98/46671	Oct. 22, 1998
Hayashi	US 2001/0018375 A1	Aug. 30, 2001

Claims 1-4, 6, 10-14, and 20-28 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Hagman '418. Claims 1-4, 6 and 10 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Hagman '772. Claims 1-4, 6, 10-14, and 20-28 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Chen (WO 98/46671). Claim 6 stands rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Hayashi.

A significant issue with respect to the propriety of the Examiner's prior art rejections relates to claimed polymer properties (particular Atti compression and Coefficient of Restitution values). The applied prior art references are alleged to describe or suggest polymers that possess these claimed properties by the Examiner. Appellant, on the other hand, maintains, *inter alia*, that the applied prior art misses the mark with respect to these claimed polymer characteristics.

Thus, in order to resolve the anticipation and obviousness issues raised by the Examiner's rejections and Appellant's arguments, the scope of

the claimed subject matter including the nature and reach of the polymer property limitations must be assessed. *Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997); *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). In so doing, we determine that the appealed claims run afoul of the definiteness requirements of the second paragraph of 35 U.S.C. § 112.

Therefore, we are unable to determine the propriety of the Examiner's §§ 102(b) and 103(a) rejections. To do so would of necessity require speculation with regard to the metes and bounds of the claimed subject matter. *In re Wilson*, 424, F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970); *In re Steele*, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). Accordingly, we procedurally reverse the Examiner's §§ 102 and 103(a) rejections<sup>1</sup> and we enter a new ground of rejection against the claims on appeal as shown below.

Pursuant to the provisions of 37 C.F.R. § 41.50(b)(2006), claims 1-4, 6, 10-14, and 20-28 are rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the appellants regard as their invention.

The purpose of the definiteness requirement is:

[T]o provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with

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<sup>1</sup> As this procedural reversal is not based upon the merits of the Examiner's §§ 102(b) and 103(a) rejections, the Examiner may need to reintroduce these prior art rejections if the claims on appeal are amended to meet the requirements of the second paragraph of § 112.

the adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance.

In re Hammack, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970).

Here, the claimed requirement for a copolymer after neutralization having Atti Compression less than a claimed formula and a Coefficient of Restitution value within a specified range for the neat copolymer renders the scope of the claims indefinite in that the Atti Compression and Coefficient of Restitution values are, by definition, measurements of the properties of a particular ball or sphere, not the measure of a copolymer property per se, as claimed. *See, e.g.*, Specification, pp. 12 and 13. Thus, the scope of the claims is unclear. In this regard, it is not clear how one of ordinary skill in the art could determine whether a particular E/X/Y copolymer has a unique Atti Compression and a unique Coefficient of Restitution for the copolymer itself, rather than for a particular ball made from such a copolymer, such that a comparison with the specified formula and range, respectively, for these parameters could be made.<sup>2</sup>

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<sup>2</sup> Prior to final disposition of this application, the Examiner should review the claims of copending application No. 10/230,015 and determine whether an obviousness-type double patenting rejection is in order. Also, the Examiner should seek to resolve any inconsistency between the description of the Atti Compression testing of the Examples as described in this application with the Atti Compression testing description in the copending child application. As an additional matter, the Examiner should review the Specification, as filed, to determine whether there is any direction therein for specifying an Atti Compression by the formula, specified in the appealed claims. In this regard, merely because two points define a line does not

## CONCLUSION

In view of the new rejection set forth above, the Examiner's §§ 102 and 103(a) rejections are procedurally reversed.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provide 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 the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the Examiner, in which event the proceeding will be remanded to the Examiner . . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record . . . .

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serve to support specifying a formula for Atti Compression based on any two Examples furnished in the original Specification absent specific direction in the Specification, as filed. If not, the Examiner should consider introducing a rejection of the appealed claims under the first paragraph of § 112, as lacking descriptive support for this claimed formula limitation.

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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).

REVERSED/§ 41.50(b)

sld

EI DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
BARLEY MILL PLAZA 25/1128  
4417 LANCASTER PIKE  
WILMINGTON, DE 19805