THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte USAMA E. YOUNES

Appeal No. 1998-3229
Application No. 08/575,976

ON BRIEF

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

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 1-20, as amended after final rejection. No other claims are pending in this application.

BACKGROUND

Appellant's invention relates to a microcellular low density polyurethane elastomer, a process of making same and a

shoe midsole made therefrom. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A process for the preparation of microcellular polyurethane elastomers, comprising reacting:

a) an isocyanate component comprising in substantial part one or more isocyanate-terminated prepolymers having a free NCO group content of from about 6 to about 16 weight percent, said prepolymers comprising the reaction product of a stoichiometric excess of one or more di- or polyisocyanates with a high molecular weight, high functionality polyoxypropylene diol having a number average molecular weight of about 3000 Da to about 10,000 Da and an actual functionality of about 1.95 or more;

b) a polyol component comprising in substantial part one or more aliphatic or cycloaliphatic chain extenders or mixture thereof;
in the presence of

C) an amount of a blowing agent effective to provide a microcellular elastomer density of from about 0.15 to about 0.6 g/cm^3.

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

Hostettler 4,559,366 Dec. 17, 1985

Claims 1-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hostettler.

We refer to the briefs and the answer for the opposing viewpoints of appellant and the examiner.

OPINION

Upon careful review of the entire record including the respective positions advanced by appellant and the examiner, we find ourselves in agreement with appellant that the examiner has failed to carry the burden of establishing a *prima facie* case of anticipation. Accordingly, we will reverse the examiner's § 102 rejection.

The examiner has the initial burden of establishing a *prima facie* case of anticipation by pointing out where all of the claim limitations appear in a single reference. *See In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *In re King*, 801 F.2d 1324, 1327, 231 USPQ 136, 138-39 (Fed. Cir. 1986). The reference must lead one of ordinary skill in the art to subject matter which falls within the scope of the claims "without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference" *In re Arkley*, 455 F.2d 586, 587, 172 USPQ 524, 526 (CCPA 1972).

Hostettler discloses microcellular polyurethane elastomer products and methods of preparing same. Hostettler (column 2, lines 12-29) teaches that their elastomer products are prepared from, *inter alia*, a component comprising prepolymers, a polyol and a blowing agent. The prepolymers are formed by reacting poly(oxyethyleneoxypropylene)polyols having hydroxyl equivalent weights ranging from 750-3000 and a hydroxyl functionality of 2 to 3 with diisocyanates.

Similarly, all of the claims on appeal either require a process that includes the steps of reacting a component comprising prepolymers, a polyol and a blowing agent or a product obtained from such a process. In addition to requiring that the prepolymer is prepared from the reaction of polyisocyanates with a polyoxypropylenediol having a number average molecular weight of about 3,000 Da to about 10,000 Da and an actual functionality of about 1.95, the claimed reactant prepolymer is required to have a free NCO group content of from about 6 to about 16.

Hence, to arrive at the appellant’s claimed invention, one of ordinary skill in the art would have to not only select a poly(oxyethyleneoxypropylene)diol having a number average

molecular weight and actual functionality within appellant's claimed range from the polyols disclosed by Hostettler but also use the polyisocyanate reactant and reaction conditions so as to form the prepolymer with a free NCO group content of from about 6 to about 16. Here, the examiner has not pointed to any portion of the applied reference that **specifical1y** describes a prepolymer having a free NCO group content of from about 6 to about 16 that was prepared by reacting a polyisocyanate with a poly(oxyethyleneoxypropylene)diol having both a number average molecular weight and actual functionality within appellant's claimed range.[1] While it may have been obvious to one of ordinary skill in the art to select a higher molecular weight polyol as taught by Hostettler and choose reaction conditions to form the prepolymer with a NCO content within appellant's claimed range therefrom given the NCO content exemplified in example 11 of Hostettler, a claim is not anticipated by a reference when

[1] We note that while the prepolymer of example 11 of Hostettler has a reported NCO content of 15.1%, the polyol employed (NIAX Polyol E-351) has a reported molecular weight of about 2800, which the examiner has not established to be within the claimed range of 3,000 Da to about 10,000 Da.

such independent picking and choosing is required to arrive at the claimed invention. *See Arkley*, 455 F.2d at 587, 172 USPQ at 526. Accordingly, we reverse the rejections under 35 U.S.C. § 102.

OTHER ISSUES

In light of the above discussion, we remand the application to the examiner to consider whether or not Hostettler alone or in combination with any other prior art, such as the admitted prior art set forth at pages 4 and 5 of appellant's specification would have rendered any or all of the claimed subject matter obvious within the meaning of 35 U.S.C. § 103. We note, for example, that the Smith et al. article (Smith) referred to at page 5 of the specification describes the formation of poly(propylene oxide) diols having high molecular weights, such as 4,000, with an actual functionality of 1.95 (Table 1). Those diols are taught by Smith as being useful in forming polyurethane elastomer products.

CONCLUSION

The decision of the examiner to reject claims 1-20 under 35 U.S.C. § 102(b) as being anticipated by Hostettler is reversed.

REVERSED AND REMANDED

CHUNG K PAK Administrative Patent Judge	)	
PETER F. KRATZ Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
CATHERINE TIMM Administrative Patent Judge	)	

PFK/dal

Bayer Corporation
Patent Department
100 Bayer Road
Pittsburgh, PA 15205-9741