

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WEI-JIAN WEN, BRIAN J.
BRIDDELL and KATHLEEN L. LAMB

Appeal No. 97-3608
Application 08/533,640¹

ON BRIEF

Before RONALD H. SMITH, WARREN and OWENS, Administrative Patent Judges.

RONALD H. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 and 3-12. Claim 2 was cancelled in the amendment filed November 14, 1996.

The subject matter relates to a 100% solids polyurethane adhesive composition for bonding roofing materials. Claim 1 is

¹ Application for patent filed September 25, 1995.

Appeal No. 97-3608
Application 08/533,640

illustrative of the appealed claims and reads as follows:

1. A 100% solids polyurethane adhesive composition for bonding roofing materials comprising:

a) a first component selected from the group consisting of: monomeric diisocyanates selected from the group consisting of toluene diisocyanate, methylene diphenyl diisocyanate, hexamethyl diisocyanate, isophorone diisocyanate, and hydrogenated methylene diphenyl diisocyanate; polymeric methylene diphenyl isocyanates formed by the reaction of one of said monomeric diisocyanates; or a prepolymer formed by the reaction of one of said monomeric diisocyanates or polymeric isocyanates with a polyol selected from the group consisting of polyether and polyester polyols;

b) a second component comprising from about 50 to 60% by weight of a polyether polyol, from about 1 to 5% by weight of a reinforcing diol, from about 5 to 15% by weight of a hydroxyl-terminated homopolymer of polybutadiene, and a tackifier; wherein the ratio of isocyanate groups in said first component to the ratio of hydroxyl groups in said second component is from about 0.5:1 to 1.5:1, and wherein said adhesive composition provides a water-tight seal upon bonding to roofing materials.

The references relied on by the examiner are:

Harada	4,607,439	Aug. 26, 1986
Gilch et al. (Gilch)	4,661,542	Apr. 28, 1987
Bandlish	4,847,319	Jul. 11, 1989

Claims 1 and 3-12 stand rejected under 35 USC § 103 as unpatentable over Harada in view of Gilch and Bandlish. We have carefully considered the entire record, including the appellants' position as set forth in the briefs and the examiner's position as set forth in the answer, and we have decided that we will not

Appeal No. 97-3608
Application 08/533,640

sustain the rejection.

Harada, the primary reference relied on by the examiner, teaches the preparation of a laminated fabric sheet having excellent air permeability, which is prepared using a rubber composition which includes as a main ingredient a liquid diene polymer (col. 2, lines 4-16). Harada discloses that the use of the liquid diene polymer as a main ingredient is extremely effective for forming air passages in the rubber composition (column 4, line 58 to column 5, line 5). As pointed out by appellants, there is no teaching or suggestion in Harada, nor in the secondary references, of the claimed composition which comprises only 5 to 15% of the polybutadiene homopolymer in part (b), the second component of the claimed composition. In examples 1 and 2, Harada discloses 48% and 29% of diene polymer by weight, and Harada teaches the use of the diene polymer as a main ingredient required to form the desired air passages in his rubber composition.

The examiner asserts that it would have been "obvious to arrive at the stoichiometry" because it's obvious to adjust amounts to vary properties. However, the examiner's assertions

Appeal No. 97-3608
Application 08/533,640

are not sufficient to satisfy the examiner's burden of providing the requisite factual basis and establishing the requisite motivation to support the obviousness conclusion. The modification of the Harada disclosure proposed by the examiner is contrary to the express teaching of Harada that the diene polymer must be present as a main ingredient and would render the composition useless for its intended purpose of producing an air permeable laminated sheet. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Nor do the references relied on by the examiner disclose or suggest a polymeric roofing membrane sealed to a roof-deck with the adhesive composition of claim 12 to provide a water-tight seal. We also agree with appellants that none of the references teach or suggest the claimed ratio of isocyanate groups to hydroxyl groups for the reasons pointed out by appellants on page 11 of the brief and page 2 of the reply brief.

Appeal No. 97-3608
Application 08/533,640

The decision of the examiner is reversed.

REVERSED

)	
RONALD H. SMITH)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
CHARLES F. WARREN)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
TERRY J. OWENS)	
Administrative Patent Judge)	

Appeal No. 97-3608
Application 08/533,640

KILLWORTH, GOTTMAN, HAGAN & SCHAEFF
One Dayton Centre
One South Main Street, Suite 500
Dayton, OH 45402-2023