

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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD L. BERTRAM

Appeal No. 2002-2314
Application No. 09/213,671

ON BRIEF

Before KIMLIN, GARRIS, and LIEBERMAN, Administrative Patent Judges.
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 48-71 which are all of the claims remaining in the application.

The subject matter on appeal relates to a method for bonding polyvinyl chloride to polyurethane comprising applying a solution of a solvent and a resin containing free hydroxyl groups to a polyvinyl chloride sheet, wherein the solvent is operative to allow the resin to dissolve and become impregnated in the sheet, and bonding the polyvinyl chloride sheet to a base polyurethane layer.

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This appealed subject matter is adequately represented by independent claim 48 which reads as follows:

48. A method for bonding polyvinyl chloride to polyurethane, comprising:

- a) providing a base polyurethane layer, said base polyurethane layer having an excess isocyanate component in its composition;
- b) applying a resin containing free hydroxyl groups to one or more portions of one or more polyvinyl chloride sheets to create treated portions of said one or more polyvinyl chloride sheets, said resin being applied in a solution containing a solvent;

and

- c) bonding said one or more polyvinyl chloride sheets to said base polyurethane layer, said bonding taking place between said treated portions of said one or more polyvinyl chloride sheets and said base polyurethane layer,

wherein said solvent is operative to allow said resin to dissolve and become impregnated in said treated portions of said one or more polyvinyl chloride sheets.

The prior art set forth below is relied upon by the Examiner in the § 102 and § 103 rejections before us:

Fuller	1,560,346	Nov. 3, 1925
Wedger et al. (Wedger)	3,197,350	July 27, 1965
Horak et al. (Horak)	4,460,747	July 17, 1984
Daude et al. (Daude)	5,279,882	Jan. 18, 1994

The admitted prior art described in the subject specification.

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Claims 48-55, 57, 59-68 and 70 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or alternatively under 35 U.S.C. § 103(a) as being obvious over, Daude.

The remaining claims on appeal stand rejected under 35 U.S.C. § 103(a) as being obvious over various combinations of Daude and Fuller, Wedger and the admitted prior art.

Finally, the appealed claims as rejected above under § 103 are additionally rejected under this statute over the applied prior art noted above and further in view of Horak.

We refer to the brief and to the answer for a complete exposition of the opposing viewpoints expressed by the Appellant and by the Examiner concerning the above noted rejections.

OPINION

We cannot sustain any of the rejections advanced by the Examiner on this appeal.

The method of Daude bonds PVC to polyurethane via a polymerized layer of polyurethane having free OH groups (e.g., see the abstract and lines 25-32 in column 4). This layer is formed from a composition of reactants including vinyl resins such as PVC containing OH groups (id.). To facilitate the deposition and formation of this layer, the composition is preferably applied

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in the form of a solution including a solvent such as methylethylketone (e.g., see lines 9-16 in column 5).

As correctly argued by the Appellant, the Daude reference contains no teaching or suggestion that the aforementioned solvent is operative to allow patentee's resin to dissolve and become impregnated in the PVC substrate as required by all appealed claims. According to the Examiner, however, the fact that patentee's solvent dissolves the PVC component of his reactive composition "is held to implicitly indicate that the same solvating effect would be performed on [patentee's] PVC substrate, in the (same) manner envisioned and claimed by appellant" (answer, page 5; emphasis deleted). Thus, it appears to be the Examiner's position that Daude's solvent inherently would be operative to allow his resin to not only dissolve but also become impregnated in the PVC substrate.

It is well settled that the initial burden of establishing a prima facie basis for denying patentability rests upon the Examiner and that the Examiner, if relying upon a theory of inherency, must provide a basis in fact and/or technical reasoning to reasonably support a determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Ex parte Levy, 17 USPQ2d 1461, 1463-64 (Bd. Pat. App. &

Int. 1990). Here, the Examiner has failed to provide a basis in fact and/or technical reasoning to support his determination that Daude's solvent would necessarily and inherently allow patentee's resin to become impregnated in the PVC substrate as required by the appealed claims. Contrary to the Examiner's belief, the mere fact that Daude's solvent dissolves the PVC component of his reactive composition does not support a determination that the solvent also would allow the dissolved resin to become impregnated in the PVC substrate. This is so for a number of reasons.

First, patentee's composition-dissolving solvents such as methylethylketone are not the same as the solvents used by Appellant (i.e., tetrahydrofuran alone or in combination with acetone) and thus cannot be regarded as having the same impregnation-effecting characteristics of the Appellant's solvents. Second, the fact that patentee's solvent dissolves the PVC component of his reactive composition does not necessarily mean that the solvent would also dissolve and thus permit impregnation of the PVC substrate. This is because the degree of similarity between the PVC component and the PVC substrate is unknown. Even assuming this solvent were capable of solvating the PVC substrate, we find nothing and the Examiner points to nothing in the Daude reference which supports a determination that the solvent of

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patentee's solution is in contact with his PVC substrate for a sufficient time and at a sufficient concentration to allow the dissolved resin to become impregnated in the PVC substrate as claimed by the Appellant.

In light of the foregoing, it is clear that the Examiner has failed to carry his initial burden of establishing a prima facie case for unpatentability based on either anticipation (*vis-à-vis* express teachings and/or principles of inherency) or obviousness with respect to the § 102 and § 103 rejections of claims 48-55, 57, 59-68 and 70 over Daude. The deficiencies of these rejections are not supplied by the additional prior art applied by the Examiner and the remaining § 103 rejections advanced on this appeal. For example, notwithstanding a thorough consideration of the Examiner's position, we do not perceive the suggestion and reasonable expectation of success, which are required for obviousness under § 103 (In re O'Farrell, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988)), for modifying the method of Daude so as to include use of a solvent (e.g., tetrahydrofuran alone or in combination with acetone as claimed by the Appellant) that is operative to allow patentee's resin to dissolve and become impregnated in the PVC substrate pursuant to the appealed claims

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in view of either the admitted prior art or the Horak reference.

It follows that we also cannot sustain any of the Examiner's remaining § 103 rejections based on Daude in combination with the other applied prior art.

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The decision of the Examiner is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
BRADLEY R. GARRIS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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)	
PAUL LIEBERMAN)	
Administrative Patent Judge)	

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