

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MICHAEL TARVIN and MICHAEL A. RAU

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Appeal No. 2003-0566  
Application No. 09/395,072

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ON BRIEF

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Before KIMLIN, GARRIS and DELMENDO, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 21-30, all the claims remaining in the present application. Claim 21 is illustrative:

21. A method of forming a solid floor coating from a liquid wherein the solid floor coating has a distinctively different color with respect to the color of the liquid to signify the change of the liquid to a solid, comprising applying an acrylate-containing ultraviolet (UV) curable liquid material to a floor surface, the acrylate-containing UV curable liquid material containing not less than 90% by weight acrylate and not less than 0.001% by weight of a dye or not less than about 0.05% by weight pigment, and subjecting the acrylate-containing UV curable liquid

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material to UV radiation for a time sufficient to cure the acrylate-containing UV curable liquid material to a solid floor coating having a distinctively different color with respect to the color of the liquid.

The examiner relies upon the following references as evidence of obviousness:

Friedlander	4,108,840	Aug. 22, 1978
Field et al. (Field)	5,302,627	Apr. 12, 1994
Rosenberry et al. (Rosenberry)	5,719,227	Feb. 17, 1998

Appellants' claimed invention is directed to a method of forming a solid floor coating from a liquid coating comprising an acrylate-containing UV curable liquid material. The liquid material also contains a dye or pigment that changes color upon exposure to UV radiation. Accordingly, the cured acrylate-containing material has a distinctly different color than the liquid material before curing. In the words of appellants,

the invention involves the use of dyes or pigments which impart a strong color to a clear liquid coating and which color becomes nearly imperceptible at the best, or visually discernible from the liquid state at the least, upon polymerization of the coating system by exposure to suitable radiation, such as ultraviolet light [page 3 of principal brief, second paragraph].

Appealed claims 21-30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Friedlander in view of Field. All the appealed claims also stand rejected under § 103 over Rosenberry in view of Field.

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We have thoroughly reviewed each of appellants' arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections for the reasons set forth in the Answer, and we add the following primarily for emphasis.

Appellants acknowledge in their Brief that they do not contest the examiner's factual determination that both Friedlander and Rosenberry, the primary references, disclose methods of forming a solid floor coating by curing with UV radiation an acrylate-containing composition that may also contain dyes or pigments. Appellants also do not dispute that Field, the secondary reference, teaches adding a dye with a visible color to a UV curable acrylate-containing composition which undergoes a change in color upon exposure to UV radiation for the purpose of determining that the composition has cured. Accordingly, based on the collective teachings of the prior art, we fully concur with the examiner that it would have been obvious for one of ordinary skill in the art to employ the dyes of Field in the acrylate-containing curable compositions of Friedlander

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and Rosenberry for the purpose of indicating the cure point of the floor coating compositions.

The thrust of appellants' arguments is that Field is non-analogous art to the floor coating compositions of Friedlander and Rosenberry inasmuch as it "is directed to the coating of electronic components such as printed circuit boards, electrical connectors and electrical splices" (page 5 of principal brief, last paragraph). According to appellants,

the use by Field et al. of dyes to indicate color changes in coatings of relatively small electrical components such as circuit boards, electrical connectors and electrical splices is a far cry from the use of color indications for the concrete floor industry and specified in the claims as [sic, at] issue [page 6 of principal brief, second paragraph].

However, we agree with the examiner that Field is analogous art insofar as it is directed to acrylate-containing UV curable compositions, as are the disclosures of Friedlander and Rosenberry. In addition, we find that appellants offer a much too narrow interpretation of Field. In our view, Field provides a more general teaching that finds applicability in fields other than printed circuit boards, electrical connectors, etc. We come to this conclusion because Field expressly discloses that the invention "relates to a method of curing compositions by ultraviolet radiation" (column 1, lines 12-13), and the

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BACKGROUND section of the reference discusses the problem of determining at what point such curable compositions are sufficiently cured. Field states that "the discovery of the present method permits establishing curing conditions which can result in sufficient cure without either undercuring or overcuring" (column 1, lines 29-31). Furthermore, under the heading SUMMARY OF THE INVENTION, no limitation is placed upon using the curable composition in the electronics industry. Also, Field explicitly discloses that the present invention can be used for UV curable compositions which make films and coatings, as well as encapsulants in the electronics industry (column 22, lines 36-40). Consequently, we are confident that one of ordinary skill in the art would have understood that Field has applicability to all uses of acrylate-containing curable compositions where it is desirable to determine the point at which the composition is cured by UV radiation.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the applied prior art.

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In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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BRADLEY R. GARRIS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
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ROMULO H. DELMENDO	)	
Administrative Patent Judge	)	

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