

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEPHANIE GOECKE and GERD HUTHMACHER

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Appeal 2007-0880  
Application 10/459,203  
Technology Center 1700

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Decided: October 31, 2007

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Before EDWARD C. KIMLIN, THOMAS A. WALTZ, and  
LINDA M. GAUDETTE, *Administrative Patent Judges*.  
KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1, 3, 5 and 8-16. Claim 1 is illustrative:

1. Process for coating a surface of a substrate, comprising the steps of

- a) coating fiber material with a polymer dispersion based on at least one polymer selected from the group consisting of polyurethanes, polyester urethanes, polyesters and mixtures thereof to form coated fibers,
- b) blending the coated fiber material with the polymer dispersion to form a coating material comprising
  - 1) 5 to 40 wt. % of the polymer dispersion, having a solids content of 25 to 90 wt. %, based on at least one polymer selected from the group consisting of polyurethanes, polyester urethanes, polyesters and mixtures thereof,
  - 2) 0-35 wt. % of at least one cross-linking agent selected from the group consisting of formaldehyde condensation resins and polyisocyanates,
  - 3) 2 to 20-wt. % of the coated fiber material,
  - 4) 0 to 20 wt. % of solvent,
  - 5) 5 to 35 wt. % of water, and optionally,
  - 6) 0.5 to 10 wt. % of compositions selected from the group consisting of coating additives, pigments, extenders and mixture thereof;
- c) applying the coating material onto the surface of the substrate and
- d) curing the coating material to form a textured surface on the substrate.

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

Koshi	4,761,312	Aug. 2, 1988
Miyazawa (as translated)	JP 50133235 A	Oct. 22, 1975
Yamamura	5,882,780	Mar. 16, 1999

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Johnson	5,122,560	Jun. 16, 1992
Urai (as translated)	JP 60132583 A	Jul. 15, 1985

Appellants' claimed invention is directed to a process for coating a surface of a substrate comprising blending coated fiber material with a polymer dispersion to form the coating, which is then applied to the substrate and cured. The fiber material is coated with a polymer dispersion based on polyurethanes, polyester urethanes, polyesters and mixtures thereof. The polymer dispersion that is blended with the coated fiber material comprises a polymer that may be the same as the polymer coated on the fiber material.

Appealed claims 1, 3, 5, 8-12, 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koshi and JP'235 in view of Yamamura. Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the stated combination of references further in view of Johnson. Also, claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Koshi in view of Yamamura and JP'583.

We have thoroughly reviewed each of the Appellants' arguments for patentability. However, we are in full 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 essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

The appealed claims embrace a process wherein polyester fibrous material is coated with a polyester before blending the coated fibrous material with an aqueous dispersion comprising a polyurethane. As

explained by the Examiner and acknowledged by Appellants, Koshi, in the background section, discloses that it was known in the art to form an aqueous dispersion comprising a polyurethane and fibrous material. JP '235, cited in the background section of Koshi, discloses that the fibrous material may be polyester. Hence, Koshi evidences that it was known in the art to form an aqueous dispersion comprising a polyurethane and polyester fibrous material.

The question is whether it would have been obvious for one of ordinary skill in the art to coat the known polyester fiber disclosed in JP '235 with a polyester coating before blending it with the polyurethane composition. We agree with the Examiner that Yamamura answers this question in the affirmative. Yamamura expressly teaches that polyester fibers may be coated with a polyester resin to enhance the hydrophilicity and durability of the fiber in preparing an aqueous dispersion. Accordingly, based on the combined teachings of JP '235 and Yamamura, we find that it would have been *prima facie* obvious for one of ordinary skill in the art to coat the fiber material of Appellants with a polyester before blending it with a polyurethane dispersion.

We are not persuaded by Appellants' argument that Koshi teaches away from the claimed invention by disclosing that the weather resistance of a polyurethane coating is inadequate due to degradation by long-term exposure to ultraviolet radiation. As explained by the Examiner, the claims on appeal are not directed to coating an outside substrate and one of ordinary skill in the art would have understood that interior coatings comprising polyurethane dispersions have minimal exposure to degrading ultraviolet radiation. Furthermore, Appellants have not demonstrated that the broad

class of coatings embraced by the appealed claims do not experience the same degradation to ultraviolet radiation discussed by Koshi, nor have Appellants established that coating compositions within the scope of the appealed claims are in any way unexpectedly superior to coatings fairly taught by the combination of JP '235 and Yamamura.

We are also not persuaded by Appellants' argument that "Yamamura is directed to elastic polyester fibers and stretchable fiber articles and makes no mention of coating compositions or the use of these fibers in coating compositions" (pg. 8 of App. Br., 3 para.). Since Yamamura specifically teaches that polyester fibers coated with a polyester resin have high hydrophilicity and durability for forming an aqueous dispersion, it is not necessary for a finding of obviousness that Yamamura also disclose the formation of a coating composition. We are confident that one of ordinary skill in the art would have appreciated that the high hydrophilicity and durability disclosed by Yamamura would have made it obvious to coat the polyester fibers of JP '235 for improving the water dispersability of the fibers in the preparation of the aqueous dispersion.

Appellants point out that "JP [']235 is directed to acrylic resin coating compositions that are clearly not encompassed by the claims" (App. Br. 13, 2 para.). However, the background section of Koshi establishes that it was known in the art to prepare fiber-containing aqueous dispersions of acrylic resins and polyurethanes. We are satisfied that one of ordinary skill in the art would have found it obvious to coat the polyester fibers with the polyester of Yamamura before preparing the known blend of polyester fibers and a polyurethane dispersion.

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As for claim 13, we agree with the Examiner that it would have been obvious, based on Johnson, to have used transparent pigments in the clear top coating of Koshi for improving the durability and weatherability of the coating.

We also concur with the Examiner that, based on JP'583, it would have been a matter of obviousness for one of ordinary skill in the art to use the modified coating of Koshi to coat automobile seats. JP'583 evidences that it was known in the art to use a textured urethane surface of natural fibers for coating such a seat.

As a final point, as eluded to above, 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.

#### CONCLUSION

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

AFFIRMED

tc/lS

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