

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte GLENN R. HIMES, JEFFREY G. SOUTHWICK  
and DAVID M. AUSTGEN

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Appeal No. 96-2945  
Application No. 08/263,163<sup>1</sup>

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ON BRIEF

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Before KIMLIN, WALTZ and LIEBERMAN, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed June 21, 1994. According to appellants, this application is a continuation of Application No. 08/073,366, filed June 7, 1993, now abandoned.



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The composition comprises a hydrogenated block copolymer of a vinyl aromatic hydrocarbon and a conjugated diene to which has been grafted at least 4% by weight of, for example, an acid compound. The composition has a shear adhesion failure temperature of greater than 60EC and a slump temperature of greater than 70EC.

Appellants have not separately argued the appealed claims. Accordingly, separately rejected claims 1-4 stand or fall together, as does the separately rejected group of claims 5 and 6.

Appealed claims 1-4 stand rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103 as being unpatentable over Chin. Claims 5 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Asahi in view of the Encyclopedia of Polymer Science and Engineering.

We have thoroughly reviewed appellants' arguments for patentability, as well as the declaration evidence relied upon in support thereof. However, we are in complete agreement with the examiner that the claimed subject matter is

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unpatentable 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.

We consider first the rejection of claims 1-4 under § 102/§ 103 over Chin. There is no dispute that Chin discloses hydrogenated block copolymers of a vinyl aromatic hydrocarbon and a conjugated diene that is grafted to at least 4% by weight of an acid compound or derivative thereof. Chin expressly discloses that the amount of grafted acid monomer is between about 0.5% and about 5% by weight. Consequently, Chin specifically describes 5% by weight of a grafting acid compound, which amount represents a description of the claimed amount of "at least 4% by weight."

Ex parte Lee, cited by the examiner, states the following at 31 USPQ2d 1105, 1106 (Bd. Pat. App. & Int. 1993):

It has long been held that the disclosure in the prior art of any value within a claimed range is an anticipation of the claimed range. See, merely for example, In re Wertheim, 541 F.2d 257, 267, 191 USPQ 90, 100 (CCPA 1976). We discern no reason for treating the specific value disclosed in the reference as the lower limit of a range any differently from any other single value disclosed in a reference. [Footnote omitted.] Thus, on the record before us, we conclude that the reference, at

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least on its face, anticipates the invention claimed here.

Also, although Chin is silent regarding the claimed properties of shear adhesion failure temperature and slump temperature, we agree with the examiner that inasmuch as Chin discloses the presently claimed hydrogenated block copolymer, it necessarily follows that the Chin block copolymer would exhibit the claimed shear adhesion failure temperature and slump temperature. In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990); In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). We note that appellants have proffered no objective evidence that rebuts the reasonable conclusion that the hydrogenated block copolymers described by Chin possess the claimed properties.

We will also sustain the examiner's rejection of claims 1-4 under § 103 over Chin and, for the reasons expressed by the examiner, we find that the Southwick Declaration is not of sufficient probative value to rebut the inference of obviousness.

We now turn to the rejection of claims 5 and 6 over the combined teachings of Asahi and the Encyclopedia of Polymer Science and Engineering. Like appellants, Asahi discloses an

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emulsion of a block copolymer that is functionalized with a grafted acid compound. Asahi also teaches that the acid compound is preferably used in an amount of 0.1 to 10 parts by weight, which amount is a description of the claimed "at least 4% by weight." See Ex parte Lee, 31 USPQ2d at 1106. While Asahi does not expressly disclose that the block copolymer is hydrogenated, the examiner correctly points out that the Encyclopedia evidences that it was known in the art to hydrogenate block copolymers of the type claimed and disclosed by Asahi for the purpose of imparting advantageous properties to the block copolymer (see page 808 of Encyclopedia).

Accordingly, we concur with the examiner that it would have been obvious for one of ordinary skill in the art to hydrogenate the block copolymer of Asahi in preparing the disclosed emulsion.

Appellants contend that "[t]here is nothing in the encyclopedia reference which would suggest that hydrogenated block copolymers, functionalized or not, could be emulsified at all, much less without a surfactant" (page 5 of Brief). However, as explained by the examiner, one of ordinary skill in the art would have hydrogenated the block copolymers of

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Asahi for the advantages described in the encyclopedia, e.g., an extension of the performance range of the copolymers, exceptional stress-strain properties, as well as superior thermal and oxidative stability. Appellants have advanced no reason why one of ordinary skill in the art would have expected that hydrogenation of Asahi's block copolymers would render them unsuitable for emulsification.

Appellants rely upon the Southwick Declaration as evidence of nonobviousness. The Declaration demonstrates that the use of 4.5% maleic anhydride in forming the grafted copolymer results in a stable dispersion whereas the use of only 1.7% maleic anhydride results in an unstable dispersion. However, it is well settled that the burden of demonstrating unexpected results rests on the party asserting them, and the evidence must show that the results are really "unexpected." In re Merck & Co., 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986); In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). In the present case, appellants have not established on this record that the results reported in the Declaration would have been truly unexpected to one of

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ordinary skill in the art, and we note that appellants have not responded to the examiner's finding that:

[T]he improvement in the water emulsion stability upon increasing of the amount of the polar functional groups grafted upon the copolymers does not appear to be unexpected since it goes to the well known scientific principle of solubility, and the fact that a more polar compound will be more soluble in a polar solvent - water.

(See page 9 of Answer). Furthermore, as noted above, Asahi discloses a preference for using at least 4% by weight of the acid compound, and appellants have presented no objective evidence that the hydrogenation of Asahi's block copolymers produces unexpected results.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed.

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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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	)	
	)	
THOMAS A. WALTZ	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
PAUL LIEBERMAN	)	
Administrative Patent Judge	)	

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