

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.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

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte KAZUHIKO YAMAMOTO and YUZO AKADA

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Appeal No. 2003-0385  
Application No. 09/348,344

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ON BRIEF

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Before KIMLIN, LIEBERMAN and DELMENDO, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claim 1. Claims 5-8 have been allowed by the examiner. Claim 1 is reproduced below:

1. A hot-melt sheet for holding and protecting semiconductor wafers during processing, the sheet comprising

a hot-melt layer A having a melting point of 105°C or lower;

a pressure-sensitive adhesive layer B formed on one surface of said hot-melt layer A; and

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a reinforcing layer C having a melting point higher by 20°C or more than that of said hot-melt layer A, said reinforcing layer C being formed on a surface of said hot-melt layer A opposite the surface having formed thereon the adhesive layer B.

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

Ishiwata et al. (Ishiwata)	4,999,242	Mar. 12, 1991
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Appellants' claimed invention is directed to a hot-melt sheet comprising a hot-melt layer A, a pressure-sensitive adhesive layer B on one surface of layer A, and a reinforcing layer C formed on layer A "opposite the surface having formed thereon the adhesive layer B." In other words, hot-melt layer A has adhesive layer B on one surface and reinforcing layer C on the opposite surface. The reinforcing layer C has a melting point that is 20°C or more than the melting point of the hot-melt layer A. Appellants' specification, at page 8, discloses ethylene/vinyl acetate copolymer (EVA) as a suitable thermoplastic material for the hot-melt layer A, and at page 13 teaches polyethylene as an exemplary reinforcing layer C.

Appealed claim 1 stands rejected under 35 U.S.C. § 103 as being unpatentable over Ishiwata.

We have thoroughly reviewed each of appellants' arguments for patentability. However, we are in complete agreement with

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the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103 in view of the Ishiwata disclosure. Accordingly, we will sustain the examiner's rejection for essentially those reasons expressed in the Answer. We add the following primarily for emphasis.

There is no dispute that Ishiwata, at EXAMPLE 10, exemplifies a sheet for holding semiconductor wafers comprising an EVA layer having a pressure-sensitive adhesive layer on one surface of the EVA and a high-density polyethylene layer on the other surface of the EVA. Accordingly, since appellants' specification describes EVA as a suitable hot-melt layer A and polyethylene as a suitable reinforcing layer C, we must agree with the examiner that Ishiwata exemplifies a hot-melt sheet for holding semiconductor wafers comprising a hot-melt layer having an adhesive layer and a reinforcing layer formed on opposite surfaces of the hot-melt layer. As explained by the examiner, although Ishiwata's EXAMPLE 10 has another EVA layer on the surface of the polyethylene layer that is not in contact with the adhesive bearing EVA layer, claim 1 on appeal, by virtue of the "comprising" language, does not exclude the additional EVA layer of Ishiwata.

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Appellants maintain that assuming the polyethylene layer of Ishiwata corresponds to the claimed reinforcing layer C, "there is no disclosure or suggestion of the melting point of the reinforcing layer being 20°C or higher than that of the hot-melt layer as presently claimed" (sentence bridging pages 4 and 5 of principal brief). We concur with the examiner, however, that inasmuch as the EVA and polyethylene layers of Ishiwata correspond to appellants' disclosed hot-melt layer and reinforcing layer, respectively, it is reasonable to conclude that the polyethylene layer of Ishiwata has a melting point that is at least 20°C higher than the melting point of the EVA layer. We find this particularly reasonable inasmuch as Ishiwata teaches that the high-density polyethylene layer has a softening point of 127°C whereas appellants' hot-melt EVA layer has a melting point of 105°C or lower. Furthermore, insofar as the examiner correctly explains that the sheets of Ishiwata and appellants have the same utility, it would have been obvious for one of ordinary skill in the art to select a reinforcing layer that has a higher melting point than the hot-melt layer.

Appellants set forth at page 2 of the Reply Brief that "[i]t is the Examiner's position that EVA at the pressure sensitive adhesive layer side of Ishiwata et al corresponds to the

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reinforcing layer C of the present invention" (paragraph three). Manifestly, this is not the examiner's position. The examiner has clearly explained in the Answer that the polyethylene layer of Ishiwata's EXAMPLE 10 corresponds to the claimed reinforcing layer C.

It should be evident from our discussion that we find no merit in appellants' contention that "Ishiwata et al. disclose a two layered structure and do not teach or suggest a third reinforcing layer as recited in claim 1" (page 3 of Reply Brief, second paragraph). The article of Ishiwata's EXAMPLE 10 comprises four layers, not two, as argued by appellants. Specifically, Ishiwata exemplifies an adhesive layer, two EVA layers and a polyethylene layer between the EVA layers.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, 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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	)	
	)	
PAUL LIEBERMAN	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
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ROMULO H. DELMENDO	)	
Administrative Patent Judge	)	

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Sughrue, Mion, Zinn, Macpeak  
& Seas, PLLC  
2100 Pennsylvania Ave., N.W.  
Washington, DC 20037-3202