

BESCHWERDEKAMMERN
DES EUROPÄISCHEN
PATENTAMTS

BOARDS OF APPEAL OF
THE EUROPEAN PATENT
OFFICE

CHAMBRES DE RECOURS
DE L'OFFICE EUROPEEN
DES BREVETS

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 18 September 1997

Case Number: W 0006/97 - 3.3.1

Application Number: PCT/US 96/10107

Language of the proceedings: EN

Title of invention:
Foamed pressure sensitive tapes

Applicant:
Norton Performance Plastics Corporation et al

Opponent:
-

Headword:
Foamed pressure sensitive tapes/NORTON

Relevant legal provisions:
PCT Art. 17(3)(a)
PCT Rules 13.1, 13.2, 13.3, 40.2(c), (e)

Keyword:
"Lack of unity of invention a posteriori - not established"
"Determination of single general inventive concept"
"Definition of the technical problem"

Decisions cited:
G 0001/89, W 0006/90, W 0011/89, W 0006/91, W 0003/92,
W 0003/93

Catchword:
-

Case Number: W 0006/97 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 18 September 1997

Applicant: Norton Performance Plastics Corporation et al.
150 Dey Road
Wayne, New Jersey 07470 (US)

Representative: Saint Gobain Corporation
Attn. Porter, Mary
1 New Bond Street
Box Nr. 15 138
Worcester, M.A., 0165-0138 (US)

Subject of this decision: Protest according to Rule 40.2(c) of the Patent Cooperation Treaty made by the applicants against the invitation of the European Patent Office (International Searching Authority) to pay additional fees dated 7 October 1996.

Composition of the Board:

Chairman: A. Nuss
Members: P. Krasa
R. Teschemacher

Summary of Facts and Submissions

I. Following the filing of international application No. PCT/US 96/10107 the EPO, acting as ISA, on 7 October 1996 issued an invitation to pay within 45 days two additional search fees (Article 17(3)(a) and Rule 40.1 PCT).

II. The said international application contained 47 claims; Claims 1, 6, 18, 25, and 36 read as follows:

"1. A pressure sensitive adhesive foam having a density that is less than about 70% of the theoretical density, wherein the foam has a peel adhesion of greater than about 1 N/cm and a compression set of less than about 60 percent.

6. A pressure sensitive adhesive foam comprising from about 99.5 to about 65% by weight of a pressure sensitive adhesive polymer composition having a peel adhesion greater than about 10 N/cm and from about 0.5 to about 35% by weight of an expandable particulate material comprising a polymeric shell and a volatilizable fluid core.

18. A pressure sensitive adhesive foam having a density that is less than about 40% of the theoretical density, wherein the foam has a peel adhesion of greater than about 20 N/cm and a compression set of less than about 20% and being formed from a composition comprising:

(a) from about 10 to about 35% by weight of a thermoplastic block copolymer;

(b) from about 30 to about 60% by weight of a tackifying resin;

- (c) from about 10 to about 25% by weight of a polymer comprising a polymer backbone selected from the group consisting of polybutadiene, polyesters and polyethers, wherein the polymer contains at least 2 active hydrogens available for reacting with an isocyanate;
- (d) an isocyanate in an amount sufficient to give a ratio of isocyanate groups to active hydrogens in component c) of from about 0.75 to about 1.25; and
- (e) from about 0.5 to about 20% by weight of expandable particulate materials comprising a polymeric shell and a volatilizable liquid core.

25. A pressure sensitive adhesive foam, wherein the foam has a peel adhesion of greater than about 1 N/cm, comprising:

- (a) at least one olefinic polymer, having a density less than 0.91 g/cm³ and a torsion modulus less than 18 MPa;
- (b) at least one tackifying resin; and
- (c) at least one particulate material, selected from the group consisting of expandable particulate material comprising a polymeric shell and a volatilizable fluid core; and glass spheres.

36. A pressure sensitive adhesive foam having a peel adhesion greater than about 10 N/cm, comprising from about 99.5 to about 70% by weight of a pressure sensitive adhesive polymer composition and from about 0.5 to about 30% by weight of a particulate material

comprising glass spheres, wherein the pressure sensitive adhesive polymer composition comprises at least one olefinic polymer, having a density of less than 0.910 g/cm³ and a torsion modulus of less than 18 MPa, and at least one tackifying resin."

Independent Claims 40, 42, 44, and 46 relate to methods for joining at least one plastic surface to a substrate using a pressure sensitive adhesive foam according to Claims 1, 18, 25, or 36, respectively; Claims 2 to 5, 7 to 17, 19 to 24, 26 to 35, 37 to 39, 41, 43, 45, and 47 are dependent claims.

The invitation to pay additional search fees (IPAF) stated that the international application related to three groups of inventions as follows:

Group 1: Claims 1 to 5, 18 to 24, 34, 35, 40 to 43;

Group 2: Claims 6 to 17, 25 to 33, 44, 45;

Group 3: Claims 36 to 39, 46, 47.

The IPAF further stated that these three groups were not so linked as to form a single inventive concept.

The ISA observed that the general technical idea of the above quoted independent claims was a pressure sensitive foam adhesive and that foam adhesives with the common inventive concept of having a peel adhesion greater than 1N/cm (ASTM-D903) were known from the document

(1) EP-A-84220.

- III. On 21 November 1996 the Applicant paid two additional search fees under protest (Rule 40.2(c) PCT). In support of the protest the Applicant submitted in essence that the alleged three groups of inventions shared common technical features which distinguished the invention over the prior art.
- IV. On 18 April 1997, the ISA informed the Applicant that, after having performed the prior review pursuant to Rule 40(2)(e) PCT, it considered the IPAF as justified and invited the Applicant to pay the protest fee within one month. The ISA's Review Panel stated in essence
- that the only feature present in all independent claims was to provide a pressure sensitive adhesive foam (PSAF) showing a peel strength of more than 1 N/cm which was therefore to be considered as the technical problem underlying the inventions of the international application;
 - that this problem was not novel over document (1); and
 - that therefore there existed no common technical feature linking the three distinct (groups of) inventions.

On 20 May 1997 the Applicant paid the protest fee.

Reasons for the Decision

1. The protest is admissible.
2. According to Rule 13.1 PCT, the international application shall relate to one invention only or to a group of inventions so linked as to form a single

inventive concept. If the ISA considers that the claims lack this unity, it is empowered, under Article 17(3)(a) PCT, to invite the Applicant to pay additional fees.

3. Lack of unity of invention may be directly evident a priori, i.e. before the examination of the merits of the claims in comparison with the state of the art revealed by the search (see, e.g. decision W 6/90, OJ EPO 1991, 438). Alternatively, having regard to decision G 1/89 of the Enlarged Board of Appeal (OJ EPO 1991, 155), the ISA is also empowered to raise an objection a posteriori, i.e. after having taken into consideration the prior art revealed by the search.
4. In the present case, the ISA's non-unity objection was based on the subject-matter disclosed in document (1) (see above points and II. and IV.) and was thus made a posteriori.
- 5.1 When deciding on unity of invention, it is mandatory under Rule 13.1 PCT to determine whether or not a group of inventions claimed in an international application forms a single general inventive concept.
- 5.2 Rule 13.2 PCT, which defines the method for determining whether the requirement of unity of invention is satisfied, states:

"Where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the

same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art."

5.3 The determination of unity of invention must be made

- without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim (Rule 13.3 PCT), and
- on the basis of the contents of the claims as interpreted **in the light of the description** and of the drawings, if applicable [emphasis added] (Part 1(b) of Annex B of the Administrative Instructions under the PCT (PCT Gazette 24/1996, 9474), which are binding not only on the ISA but also on the Board of Appeal acting as the "three-member board" according to Rules 40.2(c) and (e) PCT, see decision G 1/89 of the Enlarged Board of Appeal, OJ EPO 1991, 155).

6.1 In the Board's judgement, the "contribution which each of the claimed inventions, considered as a whole, makes over the prior art" comprises in particular the technical effects achieved as compared with the prior art. This is confirmed by Part 1(f) of Annex B of the Administrative Instructions under the PCT, relating to a situation in which several alternatives are claimed (the so-called "Markush practice"). According to paragraph (f)(i)(A) of Annex B one criterion which has to be fulfilled for a finding of unity of invention in such a case is that all the claimed alternatives have a common property or activity.

- 6.2 The relevant effects, i.e. the outcome or results achieved by the group of inventions as claimed, will normally be apparent from the technical problem or problems as stated in or deducible from the description (see also W 6/90, No. 3.1 of the Reasons for the Decision, OJ EPO 1991, 438). Therefore, and according to the established case law of the Boards of Appeal, determining unity of invention requires as a precondition an analysis of the technical problem or problems underlying the respective group of inventions (see, e.g. W 11/89, No. 4.1 of the Reasons for the Decision, OJ EPO 1993, 225).
- 6.3 Establishing the technical problem underlying a claimed invention or group of inventions in relation to the state of the art **should start**, as a rule, **from what is considered in the description** as having been achieved by the claimed invention, since claims directed to compositions of matter at least are normally silent on the technical effects to be achieved by such compositions.
- 6.4 However, as soon as the search reveals prior art which is clearly more relevant than that already acknowledged in the description of the international application, it has to be investigated as to what is to be considered as the particular technical problem in view of both the disclosure of the international application as a whole and the prior art thus revealed (W 6/91, No. 4 of the Reasons for the Decision, not published in the OJ EPO). Unity of invention can be assessed only after the technical problem has been determined in such a manner (see also W 3/92, No. 3 of the Reasons for the Decision, not published in the OJ EPO, and the decisions there cited).

7.1 No such analysis is contained in the IPAF, nor is the result of such an analysis evident from the circumstances of the case. In particular, the ISA did not define the technical problem which would have allowed the following conclusion to be drawn in the IPAF:

"The general technical idea of the independent claims 1, 6, 18, 25, 36 is: A pressure sensitive adhesive".

7.2 In this situation the Board is unable to accept, as a valid argument in support of a finding of lack of unity of invention, the ISA's further statement in the IPAF that foam adhesives with the common inventive concept of having a peel adhesion greater than 1 N/cm (ATM-D903) are known from document (1). This statement, while being correct as such, cannot contribute to the definition of the technical problem of the present application, since it relates solely to a feature characterising the claimed solution (see points 6.2 to 6.4). This statement cannot therefore be accepted as establishing the absence of a single common inventive concept in the subject-matter of the present international application.

7.3 For the same reason, the Board cannot concur with the ISA Review Panel's approach to defining the technical problem (see above point IV.), since, instead of proceeding in the way as explained above, it also relied solely on a feature of the claims.

8. It follows from Rule 40.2(c) PCT that in protest proceedings the Board can only review whether retaining the additional fees is justified, having regard to the reasons stated by the ISA in the IPAF and to the submissions made in support of the protest. The Board cannot investigate whether an objection relating to

unity of invention would have been justified for reasons other than those given in the IPAF (see W 3/93, No. 4 of the Reasons for the Decision, OJ EPO 1994, 931). The Board therefore holds that the objection of lack of unity of invention was not justified and that the two additional search fees and the protest fee cannot be retained (Rule 40.2(c) and (e) PCT).

Order

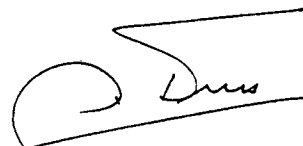
For these reasons it is decided that:

Reimbursement of the additional fees and of the protest fee is ordered.

The Registrar:


E. Görgmaier

The Chairman:


A. Nuss