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D E C I S I O N
of 19 April 2005

Case Number: T 1091/03 - 3.2.6

Application Number: 95932388.2

Publication Number: 0788338

IPC: A61F 13/56

Language of the proceedings: EN

Title of invention:
Self-adhering absorbent article

Patentee:
KIMBERLY-CLARK WORLDWIDE, INC.

Opponents:
SCA Hygiene Products AB
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 83, 123(2), 54, 56

Keyword:
"Sufficiency (yes)"
"Novelty and inventive step (yes - after amendments)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1091/03 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 19 April 2005

Appellant: The Procter & Gamble Company
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Respondent: KIMBERLY-CLARK WORLDWIDE, INC.
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 5 August 2003 concerning maintenance of European patent No. 0788338 in amended form.**

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. L. De Crignis
R. T. Menapace

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 788 388 on European patent application No. 95 932 388.2 filed on 1 September 1995 was published on 20 December 2000.

II. Two notices of opposition were filed on 20 September 2001 by the appellant (opponent II) and other party (opponent I) on the grounds of Article 100(a) and (b) EPC.

III. By decision announced during the oral proceedings on 1 July 2003 and posted on 5 August 2003 the opposition division maintained the European patent in amended form.

The opposition division was of the opinion that the amendments to claim 1 according to the main request filed during the oral proceedings were admissible and did not contravene the requirements of Article 123(2) EPC.
Furthermore the subject-matter of claim 1 was disclosed in a manner sufficiently clear and complete for it to be carried out by a skilled person. It was also considered novel and inventive when compared in particular with the prior art represented by the documents cited, including:

D3 US-A-4 460 364
D4 EP-A-0 130 080
D5 US-A-4 699 146
D7 EP-B-0 437 944
D9 Declaration of Mr Gatenholm and Mr Bengtsson and test results relating to the master curve of a

hydrophilic, pressure sensitive adhesive "Promeon RG-63B",

D13 JP-U-52 145099 (with English translation)

D14 JP-U-63 20817 (with English translation)

D16 US-A-5 114 419

D17 US-A-4 982 450

D18 US-A-4 753 648

D19 US-A-4 335 026

D20 US-A-4 719 261

IV. On 13 October 2003 the appellant filed a notice of appeal against this decision and paid the appeal fee the same day. The statement of grounds of appeal was received on 15 December 2003 together with further documents:

D25 Annex I of letter of 15 December 2003 (master curve and affidavit)

D26 Annex II of letter of 15 December 2003 (photocopy of product wrapper)

D27 Annex III of letter of 15 December 2003 (photocopy of information sheet)

D28 Annex IV of letter of 15 December 2003 (letter from Valleylab)

D29 Annex V of letter of 15 December 2003 (Enforcement Report issued by FDA)

D30 US-A-5 336 208

D31 US-A-5 352 508

D32 EP-A-0 510 786

D33 US-A-5 356 428

D34 US-A-4 911 169

V. In a communication dated 22 October 2004 the Board expressed the preliminary opinion that the appellant's

objection of lack of novelty to the subject-matter of claim 1 as upheld by the opposition division appeared to be overcome by the newly filed request.

VI. With letter of 21 March 2005 the appellant submitted further arguments, maintained its request that the European patent should be revoked and informed the Board that it would not attend the oral proceedings. The other party (opponent OI) had already informed the Board with letter of 30 November 2004 that it did not intend to attend the oral proceedings. It requested that the patent be revoked in its entirety.

VII. Oral proceedings were held on 19 April 2005. The Respondent (patentee) requested to maintain the patent on the basis of claims 1 to 14 submitted during the oral proceedings, claim 1 reading:

"A sanitary napkin (10) comprising

a) a cover (28) having a bodyfacing surface (24) with a predetermined area and a garmentfacing surface;

b) an absorbent core (20) adjacent to said garmentfacing surface of said cover (28); and

c) a hot melt, pressure sensitive adhesive (22) secured to less than about 90 percent of said bodyfacing area,

characterized in that said adhesive has a tan δ residing inside a quadrangle ABCD wherein said quadrangle ABCD is straightedged and is defined by graphically plotting on a log/log scale frequency in radians per second versus tan δ referenced to about 20° C of said adhesive,

said quadrangle ABCD having as points A and D a tan δ of about 0.01 and about 0.6 respectively at a frequency of about 0.1 radians per second and points B and C at a tan δ of about 0.1 and about 1.7 respectively at a frequency of about 1000 radians per second, such tan δ being determined using the procedure set out in the description."

VIII. In support of its request the appellant in the written procedure essentially relied upon the following submissions:

The patent in suit did not disclose in a manner sufficiently clear and complete how to arrive at an adhesive composition having the rheological property tan δ as claimed. None of the examples explicitly referred to hot melt adhesives. The adhesives specified in the examples had not been commercialized. Furthermore, the method of determining tan δ lacked essential information since it was for example not clear what percentage of water should be present within the adhesive during the determination.

Starting from D5 as the most relevant prior art, the problem to be solved was to find alternative adhesives with excellent properties in adhesive strength, cohesion and tackiness to wet skin and which were also applicable in a simplified manufacturing process. D5 disclosed pressure sensitive hydrogel adhesives for the same purpose and function as in the patent in suit and inherently disclosed the relevant characteristics of these adhesives. The skilled person routinely used tan δ rheological data when evaluating pressure sensitive adhesives. Choosing certain frequencies and determining

the suitable operating range was part of routine laboratory measurement and therefore, no inventive step was associated with the choice of the limits. In order to find alternative adhesives the skilled person would test the suitability of other adhesives known for the required use. Hot melt adhesive was an obvious alternative to hydrogel type adhesive and was known from D3 or D20. The concept of limiting the adhesive type to hot melt could not show any inventive difference unless there was the desired rheology.

IX. The submissions of the respondent (patentee) are summarized as follows:

The invention provided a basis for identifying hot melt adhesives which allowed easy application during the manufacturing process and secure bonding to the skin during use but which were not so aggressive as to cause an unacceptable level of pain or discomfort on removal of the napkin. The identification of these adhesives was performed on the basis of the tan δ property which should reside inside the quadrangle ABCD as specified in the claim. In the patent detailed information was disclosed for determining tan δ and therefore, the skilled person was able to determine this property and thus there was no problem in identifying the suitable adhesives falling within the scope of the claim. Hence, the requirements of Article 83 EPC were met.

None of the cited prior art disclosed the use of hot melt adhesives on the body facing side of a sanitary napkin let alone those with the claimed rheological property. Hot melt adhesives were well-known as construction adhesives. Furthermore, they were used on

the garment facing side of sanitary napkins for the attachment to the panty. Their use was appreciated from the manufacturer's point of view mainly because of their aggressive adhesive performance and ease of application in the manufacturing process. However, at the priority date it was neither known nor considered at all possible that hot melt adhesive would be a suitable alternative for direct attachment to the skin. Therefore, the subject-matter of claim 1 was not obvious to the skilled person and consequently involved an inventive step.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments (Article 123(2) EPC)*

Claim 18 as granted forms the basis for amended claim 1 and has been amended by the inclusion of the adhesive being further defined by
"wherein said quadrangle ABCD is straightedged and is defined by graphically plotting on a log/log scale" and "such tan δ being determined using the procedure set out in the description".

These additional features further specify the claimed subject-matter both as to the possible values of tan δ as well as the determination of this property. Not only are these limitations disclosed in the application as filed, their inclusion in claim 1 was carried out in reply to the arguments put forward by the appellant and thus could have been anticipated by the latter.

3. *Procedural considerations*

The Enlarged Board of Appeal in its decision G 4/92 (OJ EPO 1994, 149) explained the conditions under which a decision may be taken at oral proceedings against a party who has been duly summoned but who fails to appear, without encroaching upon that party's rights under Article 113(1) EPC. The Enlarged Board of Appeal considered that in such a case new arguments may in principle be used to support the reasons for the decision insofar as these do not change the grounds on which the decision is based. In the present case no new evidence was presented during the oral proceedings before the Board and only documents already cited in the written procedure are used in support of the decision on the appeal. Auxiliary request II submitted during the written procedure formed the basis for the current request. This request has been amended in a manner that could have been anticipated by the appellant under the given circumstances and therefore, despite the appellants' absence at the oral proceedings, the Board could decide the case without contravening Article 113(1) EPC.

4. *Sufficiency*

Objections under Article 83 EPC had been raised on the ground that the specific adhesive mentioned in relation to the examples disclosed in the patent in suit had never been commercialized and thus it had not been possible to reproduce the examples.

It is true that examples 1 to 4 of the patent in suit refer to four adhesives from National Starch Company which are neither specified by their chemical relationship nor by their structural identity. However, the explanation of the patentee that all four examples represented hot melt, pressure sensitive adhesives has not been contested. The fact that these particular adhesives had not been commercially available is of no further relevance since the present invention is not related to commercial availability of one or more specific adhesives but generally to hot melt, pressure sensitive adhesives of specified rheological properties to be used on the body facing surface of a sanitary napkin and examples 1 to 4 have been particularly inserted in order to demonstrate these rheological properties in figures 6 to 9.

The same applies to reproducibility. It is not required that exactly these examples could be reproduced, it is sufficient that it has been demonstrated that the rheological characteristic tan δ of hot melt pressure sensitive adhesives could reliably be obtained and thus reproduced.

It is true that the rheological properties, including tan δ, are highly dependent upon the moisture content of the adhesive. However, the present reference in the claim to the process for determining tan δ based on the test procedure specified in the description of the patent in suit are considered by the Board to give sufficient and complete information as to the determination of this property, and are further supported by the data provided by the appellant (i.e. D9, D21 which both exhibit master curves of the tan δ

values for hydrogel adhesive (D9) and for hot melt adhesive (D21) in the relevant frequency range). In the absence of any evidence supporting the appellant's allegations the contrary view finds no support.

The disclosure of the patent in suit thus meets the requirements of Article 83 EPC.

5. *Novelty*

D14 represents the closest prior art which view was also taken by the opposition division, opponent OI and the patent proprietor. It refers to sanitary napkins with pressure sensitive adhesive fixed to the bodyfacing surface. There are two features wherein the subject-matter of claim 1 differs from the sanitary napkins disclosed in D14. The first difference lies in the fact that the adhesive is chosen from hot melt, pressure sensitive adhesive. The second difference is represented by the adhesive having a tan δ which resides inside a quadrangle ABCD wherein said quadrangle ABCD is straight-edged and is defined by graphically plotting on a log/log scale frequency in radians per second versus tan δ referenced to about 20°C of said adhesive, said quadrangle ABCD having as points A and D a tan δ of about 0.01 and about 0.6 respectively at a frequency of about 0.1 radians per second and points B and C at a tan δ of about 0.1 and about 1.7 respectively at a frequency of about 1000 radians per second, such tan δ being determined using the procedure set out in the description.

Also none of the further documents cited in the proceedings disclose such characteristics of an

adhesive which would comply with the definition specified in claim 1. Consequently, the subject-matter of claim 1 meets the requirement of novelty (Article 54 EPC).

6. *Inventive step*

6.1 D14 discloses sanitary napkins with adhesive fixed to the body facing surface and thus napkins which can be adhered to the skin. D14 states that "a weak adhesive power is sufficient, not hurting the pubic hair when [the sanitary napkin is] peeled off after use" (page 4 of the English translation, lines 31/32). It is suggested to choose the pressure-sensitive adhesive from a variety of suitable materials, e.g. on the basis of natural rubber, styrene-butadiene rubber or polyisoprene.

6.2 Starting from a sanitary napkin as known from D14, the problem to be solved is to select an alternative pressure sensitive adhesive which equally allows the napkin to be securely adhered to the body in the specific environment of use without causing discomfort or unclean release upon removal.

The solution as presented now in claim 1 refers to the use of hot melt, pressure sensitive adhesive having the rheological property tan δ specified in claim 1.

6.3 The skilled person looking for alternative pressure sensitive adhesives would derive from D5, which document represents an alternative type of adhesive in the form of a hydrophilic adhesive comprising polyvinyl pyrrolidone and discloses also its use on the body

facing surface of a sanitary napkin, data for peel strength (lbs/in. width) and the importance of this property for the reduction of irritation upon pad removal. However, D5 fails to give any indication in defining a range of tan δ values representing such property.

The additionally presented evidence (D25 - D29) concerning one commercially available hydrogel envisaged by D5 shows a tan δ value falling within the range of tan δ defined in claim 1. However, also from this fact - if taken as proven - the skilled person can derive neither a specific area of possible tan δ values suitable for the intended use nor a suggestion to the use of hot melt adhesives and even less the use of such a rheological range for hot melt adhesives.

6.4 The further cited prior art concerning pressure sensitive hydrogel adhesives (D4, D7, D9, D19, D25 - D28, D30 - D34) and their proposed use concerns predominantly medical tapes, wound management and iontophoretic devices which are directly applied to the skin. From these available data it is apparent that the values and ranges of the proposed rheological properties differ according to the intended purpose without however dealing with values or ranges of values particularly suitable for sanitary napkins to be adhesively applied to the human skin.

6.5 D3 and D20, are concerned with hot melt, pressure sensitive adhesive, but disclose rheological properties (storage modulus G', G", loss tangent, J', J") different from those claimed in the patent in suit.

Furthermore, their use only concerns the garment facing side of an article (claim 6 of D3, abstract of D20).

6.6 It is true and remained uncontested that these hot melt adhesives, because of their excellent qualities in respect of application in a continuous manufacturing process and their aggressive adhesive properties, are generally used as construction adhesives. Exactly for that reason the skilled person would not have immediately selected such an adhesive for the present intended use without some evidence of their suitability for that other purpose. The recognition that hot melt adhesives could be used on the body facing side of a sanitary napkin in case the rheological property tan δ was chosen to lie within a certain area in a log/log scale presentation is not one that is suggested anywhere by the cited prior art.

6.7 Therefore, the solution claimed in the patent in suit is not simply a matter of alternative adhesives and routine laboratory measurements. Rather, it provides the skilled person with a way to identify appropriate hot melt pressure sensitive adhesives by determining the rheological property tan δ within a specific framework. Since this solution is not derivable from the cited documents it involves an inventive step (Article 56 EPC).

7. In view of the above findings the Board comes to the conclusion that the proposed solution of the technical problem underlying the patent in suit as defined in claim 1 is novel and inventive and complies with the criteria for patentability (Article 52(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of the following documents:
   - Claims, numbers 1 to 14 as filed during oral proceedings
   - description, pages 2 to 7 as filed during oral proceedings
   - figures, numbers 1 to 10 as granted

The Registrar: The Chairman:

M. Patin P. Alting van Geusau