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D E C I S I O N
of 14 June 2005

Case Number: T 0181/04 - 3.2.6

Application Number: 95944098.3

Publication Number: 0799006

IPC: A61F 13/42

Language of the proceedings: EN

Title of invention:
Toilet training and creating a temperature change

Patentee:
Kimberly-Clark Worldwide, Inc.

Opponent:
The Procter & Gamble Company

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 123(2), (3)
EPC R. 57a

Keyword:
"Adjournment of the oral proceedings (no)"
"Clarity and support of amendments (yes)"
"Novelty and inventive step (yes)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0181/04 - 3.2.6

D E C I S I O N
of the Technical Board of Appeal 3.2.6
of 14 June 2005

Appellant: (Opponent)	The Procter & Gamble Company 1, Procter & Gamble Plaza Cincinnati, Ohio 45202 (US)
Representative:	Buzzi, Franco Buzzi Notaro & Autocalli d'Ouls Via Maria Vittoria 18 I-10123 Torino (IT)
Respondent: (Proprietor of the patent)	Kimberly-Clark Worldwide, Inc. 401, North Lake Street Neenah, Wisconsin 54956 (US)
Representative:	Davies, Christopher Robert Frank B. Dehn & Co. 175 Queen Victoria Street London ECAV 4EL (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 30 October 2003 concerning maintenance of European patent No. 0799006 in amended form.**

Composition of the Board:

Chairman: P. Alting van Geusau
Members: G. L. De Crignis
J. H. Van Moer

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 799 006 in respect of European patent application No. 95 944 098.3 claiming a priority of 22 December 1994 from US 362029 was published on 22 March 2000.

II. Notice of opposition was filed against the granted patent on 18 December 2000 based on objections of lack of novelty as well as of inventive step on the grounds specified in Article 100(a) EPC.

III. By decision of the opposition division announced during the oral proceedings on 1 October 2003 and posted on 30 October 2003 the patent was maintained in amended form. The opposition division was of the opinion that the claimed subject-matter complied with the requirements of the EPC. The subject-matter of claim 1 was considered novel and inventive when compared in particular with the prior art represented by the documents:

D1 EP-A-0 704 195
D2 US-A-4 363 322
D3 US-A-3 794 024
D4 US-A-3 675 654
D5 US-A-5 178 139
D6 US-A-4 287 153
D7 US-A-4 273 667
D8 US-A-4 931 051
D9 US-A-4 533 483
D10 US-A-4 967 573
D11 WO-A-94/02257

IV. On 19 December 2003 a notice of appeal was filed against this decision by the appellant (opponent) together with payment of the appeal fee. The statement of grounds of appeal was filed on 9 February 2004. Objections in respect of inventive step (Article 100(a) EPC) were made against the amended claim 1 as maintained by the opposition division. In response to the appeal the respondent with letter of 12 October 2004 filed new claims in accordance with a main request and three auxiliary requests.

V. In a communication accompanying the summons for oral proceedings pursuant to Article 11(1) Rules of Procedure of the Boards of Appeal, the Board raised the question of whether the problem stated in the patent was solved by the subject-matter of claim 1. Further points to be addressed during the oral proceedings were indicated as being the determination of the closest prior art and the objective problem to be solved by the claimed subject-matter.

VI. The appellant based further arguments upon the following documents submitted with letter of 6 May 2005:

- D12 US-A-5 342 343 which is an English language family member of EP-A-0529641 which was already cited in the European Search Report; and

- D12a "Calorimetric characterisation of superabsorbent properties" Dr P. Daniel from BASF, a lecture held on 27-30 April 1999 in Geneva, Switzerland at the Index 99 Nonwoven Congress and published by EDANA.

In particular he raised the objection that the subject-matter of claim 1 of the main request lacked novelty over D12 and that the subject-matter of claim 1 of all three auxiliary requests lacked clarity.

VII. Oral proceedings were held on 14 June 2005. The appellant requested that the decision under appeal be set aside and that the European patent be revoked. The appellant further requested adjournment of the proceedings in view of the late filed claim 1.

The respondent (patentee) requested that the patent be maintained on the basis of the main and only request submitted during the oral proceedings,

Claim 1 of this request reads:

"A training pant (20, 80, 90), comprising
a moisture barrier (56);
an absorbent assembly (54) disposed on the moisture barrier (56); and
a liquid permeable temperature change member (22, 82) disposed with the absorbent assembly (54) and containing a temperature change substance (70) which either absorbs or releases heat when contacted by urine;
wherein the training pant provides a surface temperature change when wet of from about 5.5 to about 11.1 °C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test procedure described therein."

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

Present Claim 1 filed during the oral proceedings should not be admitted as it was late filed. The objections set out in the letter of 6 May 2005 already raised the question of clarity with respect to the term "when wet". Therefore, the respondent could have already been aware that further amendments might be necessary and should have filed such a clarified claim earlier. Only then would it have been possible to perform tests for determining the claimed properties also on known products. Adjournment of the proceedings was necessary to give the appellant sufficient time to consider and prepare his case in view of the new request.

In any case, the subject-matter of claim 1 lacked clarity even in view of the test procedure set out in the description. The test procedure for establishing the surface change temperature required a temperature of 21 to 22°C at a humidity of 50%. These conditions could not be maintained throughout the procedure due to the temperature of 37°C of the saline solution. Furthermore, the instruction to perform the procedure for the evaluation of comparative test data on "a portion of the product not including the temperature change substance or on a similar product without the temperature change substance" was not clear since the first alternative could not be performed on a training pant whose temperature change member covered the whole length and full width of the article, which possibility was also embraced by the claim. The term "portion" was completely vague as to the extent of the portion and it

was not clear what a "similar product" should be. The test liquid should be a certified blood bank saline available from "The Baxter Healthcare Corporation", and it was not clear whether such a specific saline solution would still be available today and "The Baxter Healthcare Corporation" might perhaps even no longer exist.

The subject-matter of claim 1 was not new over the disclosure of D12. In D12 a training pant was shown in figure 1, the moisture barrier was present in form of the backsheet and an absorbent assembly was shown in the form of the water absorbent tissue paper (10). The temperature change member was represented by the core (6) (column 2, lines 41 to 45) in which the super absorbent polymer powder was distributed. The surface temperature change when wet fell into the claimed range when determined on the basis of a simple calculation. Considering that a training pant, depending on the chosen size, could weigh around 90 g and that it was kept at 21°C before the test, it had to be concluded that 30 seconds after dispensing 90 ml of saline at 37°C at a rate of 15 ml/sec a temperature of around 29°C should be reached for the whole article. Measuring the temperature and performing a reference measurement on a portion of the product not including the temperature change substance, represented by the stretchable elastic members (8), these members (8) did not absorb such a saline fluid and would remain at 21°C, thus a temperature difference (29°C - 21°C) of around 8°C resulted. This surface temperature change clearly fell within the claimed range.

Even if considered to be novel, the subject-matter of claim 1 did not involve an inventive step. In known training pants, the problem related to assist the wearer in recognizing that urination had occurred, was common to all training pants and could be recognized simply by observing such products. An appropriate starting point could be represented by any currently available training pant. The skilled person knew from D12 to rely on a distinct member for enhancing the perception of urination via the sensation of wetness. Hence, it could only be obvious to rely on a distinct member enhancing the perception of urination via temperature sensation as well. The fact that wetness in underpants produced a cooling effect was well-known. By analogy with D12, the solution to include a member containing indicia with respect to a temperature change was obvious. The specified range of surface temperature change in claim 1 did not contribute to the inventive concept and the provision of a reproducible test procedure was common laboratory practice. Thus, the claimed subject-matter simply referred to an obvious solution.

The same result would be obtained with regard to inventive step having identified the problem referred to above starting from conventional training pants comprising superabsorbent polymer. It was well-known that superabsorbent polymer released heat during swelling as acknowledged in the patent specification (column 8, lines 14 to 16). This effect was further supported by D12a. Usually a known training pant weighed around 90 g. Increasing the relative amount of superabsorbent polymer would therefore also provide an enhanced effect of surface temperature change upon

urination and in consequence, the awareness in small children of urination. The definition of the surface temperature range and its determination could not support an inventive step. Thus, no inventive step could be recognized in the subject-matter of claim 1.

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

The request for adjournment of the oral proceedings was not justified. The appellant could not be surprised by the amendments since the third auxiliary request as filed in response to the appeal already contained the feature relating to the surface temperature change when wet. Furthermore, an amendment incorporating the test method as disclosed in the description was nothing more than a clarification and did not really add anything new to the claims.

The test method itself was clearly specified and unambiguously disclosed in the description and the skilled person would have no problem in arriving at reliable results. Whether the test solution was available directly from The Baxter Healthcare Corporation as described in the application as filed or not did not influence the test results because any 0.9% saline solution would lead to identical results.

Considering novelty it should be noted that nowhere in D12 was mentioned a surface temperature change. D12 referred to another inventive concept of improving the awareness to urination of the infant which related to wetness and not to temperature sensation. D12 further did not provide a temperature change member and the

absorbent core comprising superabsorbent polymer did not lead to a temperature change at the surface of the article in the claimed range.

With respect to inventive step, the closest prior art was provided by training pants in general. The inventors realised that a distinct indication of when urination was occurring would assist in the toilet training of the child. D12 already provided a solution to this problem in the form of a distinct wetness sensation member. In order to avoid skin problems due to enhanced and prolonged wetness, an alternative solution had to be found. The patent in suit presented such an alternative solution in the form of the provision of a surface temperature change in a specified range which was neither known from nor suggested in the cited prior art documents.

D12 pointed in the opposite direction since according to column 1, line 59 of D12 "the quantity of fluid excretions substantially remain in the floating zones" and only a limited degree of wetness could be obtained. No suggestion to maintain dryness was present which would be necessary in order to support a temperature change of a member within the structure. The range of from about 5.5 to 11.1°C was nowhere suggested either.

Reasons for the Decision

1. The appeal is admissible.

2. *Request for adjournment of the oral proceedings*

The respondent's request for maintenance of the patent in amended form based on the current claim 1 was filed during the oral proceedings and thus at a late stage of the appeal proceedings. The question arises whether such a late filed request should be admitted into the proceedings and if so whether there is a reason to adjourn the oral proceedings as was requested by the appellant.

Filing of amended claims in opposition-appeal proceedings is governed by Article 123 and Rule 57a EPC, which do not specify a time limit for submission of amendments. Therefore a board has discretion to accept amended claims at any stage of the proceedings. However, over the years the boards have laid down criteria for limiting the admissibility of amended requests. In general, the time of filing the amended claims, the difficulty in examination, fairness vis-a-vis the opponent, to give sufficient opportunity to respond, and the reason for the late filing, are all important criteria for deciding on the admissibility of amended claims.

Current claim 1 is based on claim 1 of the third auxiliary request, filed by the respondent in reply to the statement of grounds of appeal. The further amendments carried out to this claim mainly concern the further specification that the temperature change

member contains a temperature change substance which either absorbs or releases heat when contacted by urine, and a reference to the method of measuring the surface temperature change when wet.

The Board notes that, in its letter dated 6 May 2005, the appellant raised the question of clarity with respect to the term "when wet" in claim 1 of the third auxiliary request because "there was no indication of the quantity of liquid necessary for obtaining the claimed temperature change". Therefore, the incorporation into the claim of a reference to the complete method described in the application as filed for determining the temperature change when wet is an amendment that could have been expected by the appellant.

The other amendment essentially limits and clarifies the functioning of the temperature change member to be activated by contact with urine. This amendment, carried out in response to an objection made by the Board, now clearly specifies what was already understood as the proper functioning by the appellant and cannot lead to surprise or difficulties in examination or preparation of the appellant's response either.

It is true that the respondent could have filed the amended claim earlier because the deficiencies had been addressed both by the appellant in its response to filing of the auxiliary requests and the Board in its communication attached to the summons for oral proceedings.

However, under the present circumstances the Board is of the opinion that it is unreasonable to reject the amended claim solely for reason of its late filing, when, based on an objective analysis of the situation, the late filing of such a claim does not lead to a new, unexpected situation for the appellant or to difficulties in examination of its subject-matter or would otherwise cause delay or endanger the fairness of the proceedings.

Therefore, the Board does not see a valid reason for objecting to the admissibility of amended claim 1 or for deciding on an adjournment of the proceedings, as was requested by the appellant.

3. *Basis for the amendments*

Claim 1 has been limited to a "training pant" which "provides a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test procedure described therein".

Furthermore, the feature according to which the "temperature change member ... comprising a temperature change substance" has been amended to read "temperature change member ... containing a temperature change substance which either absorbs or releases heat when contacted by urine".

Basis for these amendments can be found in the originally filed application:

- on page 1, line 10 as well as throughout the description of the application for the feature of "a training pant";

- on page 15, lines 13 to 16 for the term "comprising a temperature change substance" which has been changed to "containing a temperature change substance";

- on page 9, lines 30 to 32 for the addition that the temperature change substance "either absorbs or releases heat when contacted by urine";

- in claim 20 as originally filed for the feature of "providing a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit)";

- on page 21, line 25 to page 22, line 23 for the feature "when measured in accordance with the test procedure described therein". This test procedure is disclosed in the description of the patent in suit as belonging generally to the invention.

All the amendments are based on the description as originally filed and are disclosed in the present combination, therefore the requirements of Article 123(2) EPC are met.

Since the scope of granted claim 1 was further restricted by the insertion of the test procedure and by the restriction of the absorbent article to training pants, the requirements of Article 123(3) EPC are equally fulfilled.

4. *Clarity of amendments*

The test procedure set out in the description is self-explanatory:

In so far the test conditions involving a temperature of 21 to 22°C at a humidity of 50% refer to standard conditions well-known in laboratory practice.
With respect to the comparison temperature on the surface of the article, the test procedure relies on the feature of "a portion of the product not including the temperature change substance or on a similar product without the temperature change substance". The skilled person can choose one or the other possibility dependent on the design of the product. The disclosure can reasonably only be understood such that a comparative surface "portion" should be identical to the test surface "portion" only with the exception of not containing a temperature change substance. Elastic side/leg portions without an absorbent assembly as suggested by the appellant are therefore excluded.
The claimed test procedure further specifies that the test liquid should be a stabilized isotonic 0.9% saline. The reference to a certified blood bank saline available from "The Baxter Healthcare Corporation" can be considered as one example of such stabilized isotonic 0.9% saline. It is of no further relevance whether this certified blood bank saline from "The Baxter Healthcare Corporation" might no longer be available. The certification of the saline or the identity of the company delivering the saline cannot be considered to influence the test result regarding the

temperature change on the surface of the tested product (or portion of a product).

For these reasons, the test procedure set out in the description is considered to be sufficiently clear and reproducible by the skilled person without any difficulty. Moreover, its insertion into claim 1 is necessary in order to allow reliable reproducibility of the results. Therefore the requirements of Article 84 EPC and Rule 57a EPC are met.

5. *Novelty*

The appellant relied on the disclosure of D12 for arguing lack of novelty of the subject-matter of claim 1. The Board is satisfied that the training pant is novel.

5.1 In D12 a training pant (1) is shown in figure 1, the moisture barrier is present in form of backsheet (5), an absorbent assembly is disclosed in water absorbent tissue paper (10) covering a core (6) made of a mixture of fluffy pulp, thermoplastic hydrophobic crimped fibre and super absorbent polymer powder. The object of D12 is to provide a pant without leakage but effective in making babies aware that the pants have been wetted (column 1, lines 25 to 31). This object is achieved by means of a moisture holding sheet (11) made of nonwoven fabric, which is bonded to the upper side of the top sheet at least over a central zone thereof (column 2, lines 22/23). This moisture holding sheet (11) has floating zones which serve as moistness sensor means in so far as channels are provided so that fluid remains

in the floating zones and make babies feel uncomfortable.

5.2 The subject-matter of claim 1 differs from this training pant of D12 in that it comprises a liquid permeable temperature change member disposed with the absorbent assembly which contains a temperature change substance. Furthermore, D12 does not disclose the feature "the training pants provides a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test procedure described therein".

5.3 With respect to the feature of a temperature change member disposed with the absorbent assembly and containing a temperature change substance, contrary to the appellant's assertion, no such feature is present in D12. According to claim 1 the temperature change member is distinct from the absorbent member whereas in D12 the whole construction of tissue paper (10) together with the mixture of fluffy pulp, thermoplastic hydrophobic crimped fibre and super absorbent polymer powder represents an absorbent assembly. Only with hindsight could such an absorbent assembly be divided into tissue paper (10) forming the absorbent core on the one hand and core (6) forming a temperature change member on the other hand which would not be a normal interpretation for the person skilled in the art.

5.4 With respect to the feature "the training pants provides a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test

procedure described therein" the appellant referred to D12a which demonstrates for superabsorbent polymer itself a temperature rise of around 3 ° K. However, this fact is not related to the claimed temperature change on the surface of a finished article. Superabsorbent polymers are widely used in the related art and it has been acknowledged already in the patent in suit that the release of heat for one form of superabsorbent polymers, the lightly cross-linked partially neutralized polyacrylic acid, was well-known in the art (column 8, lines 14 to 16). Therefore, it was also known that a small rise of temperature will occur in the superabsorbent polymers of an absorbent article. However, it is not such a usual small rise of temperature of the superabsorbent polymer itself which is claimed, but a specified temperature change on the surface of the training pant measured as set out in the description.

5.5 With respect to the feature "the training pants provides a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test procedure described therein", the appellant relied also on D12 alone. He carried out calculations in order to establish the temperature change on the surface of the training pant of D12. However, the appellant's results are not considered reliable for the following reasons.

First, the surface temperature change when wet has to be determined strictly according to the description of the patent in suit which involves that the temperature has to be measured on a portion including the temperature change member and the comparative

temperature has either to be measured on a portion of the test product itself not including the temperature change member or on a similar product without such a member - in any case, however, on a portion including all the other structures similar to the portion of the test product itself. Therefore, a measurement on a portion relating to the stretchable elastic members is not contemplated.

Second, the surface temperature at the chosen portion 30 sec after application of the saline solution has to be determined on the test product/portion and a comparative product/portion and the difference has to be calculated. Therefore, the calculation of the appellant not referring to a correct comparative product/portion of a training pant does not rely on the specified test procedure and is not capable of destroying the novelty of the subject-matter of claim 1.

6. *Inventive step*

6.1 In selecting the closest prior art, the first consideration is that it must be directed to an article suitable for enhancement of perception of urination. Hence, the closest prior art is represented by a common training pant as disclosed in the description of the patent in suit, column 1, lines 8 to 15. This known training pant had been developed to the point where the wearer remains relatively dry and comfortable after urination which implies that these known training pants quickly draw liquid away from the wearer's skin and retain it away from it also. This implicitly renders clear that such appropriate training pants have an absorbent core within their structure. Hence, the

starting point is represented by such a known training pant which comprises a moisture barrier for prevention of soiling the outer garment and an absorbent assembly disposed on the moisture barrier for retention of fluid.

6.2 The closest prior art for assessing inventive step cannot be represented by D2 as suggested by the opposition division, since this prior art is based on a different concept. The purpose of D2 is to provide a deodorizing and disinfecting liquid absorbent product. This liquid absorbent product is represented by the whole range of such products as for example sanitary napkins, surgical dressings, compresses, bandages and diapers. At the filing date of D2 (12 April 1979) training pants of the type under consideration were not known. Therefore, these examples had the aim to deodorize and disinfect. No suggestion is found to use the mildly cooling effect of some deodorizing or disinfecting substances. Disinfectants could also counteract to or neutralize the perception of urination and thus such an article cannot represent an appropriate starting point.

6.3 The objective problem underlying the subject-matter of claim 1 in accordance with that as identified in the patent in suit (paragraph 0001) is to provide the wearer with a perceptible temperature change upon urination.

6.4 This problem is solved by the following features of the training pant of claim 1: "a liquid permeable temperature change member (22, 82) disposed with the absorbent assembly (54) and containing a temperature change substance (70) which either absorbs or releases

heat when contacted by urine; wherein the training pant provides a surface temperature change when wet of from about 5.5 to about 11.1°C (about 10 to about 20 degrees Fahrenheit) when measured in accordance with the test procedure described therein."

6.5 The skilled person in this case has to be defined as being responsible for the technical layout of an absorbent article in order to design the article with respect to its internal structure and the corresponding technical manufacturing and also trained in laboratory work and responsible for the performance of test procedures.

6.6 Facing the problem of providing the wearer with a perceptible temperature change upon urination the skilled person must, first, find a suitable structure to enable such a perception and secondly, define a suitable temperature range which can be carried out within this suitable structure in combination with a reliable and reproducible test procedure.

6.7 Starting from a known training pant comprising superabsorbent polymer and considering which design of the article could be appropriate, the skilled person would investigate in related fields and could find solutions to the problem of perception of wetness by indicia based upon temperature change or colour change for example in D1 and D3. However, the disclosure provided in these documents is intended to solve other problems and leads to different solutions to the one claimed.

6.7.1 D1 refers to a sanitary napkin containing a thin layer of absorbent material, and within the interior of the absorbent material is a small cavity containing a temperature sensitive reactive chemical product that responds by turning cold when it comes into contact with and dissolves in a menstrual flow. The small cavity is not suitable for training pants concerning small children and no definition of a surface temperature range is present.

6.7.2 D3 refers to catamenial devices and particularly to tampons. A wetness indicating member is provided. The aim of D3 is to provide an indication that the **absorbent capacity of the tampon has been reached**. This solution points in a different direction to the patent in suit. A combination of a known training pant with the teaching of D3 would thus lead to an **indication of full capacity** but not to an indication that urination has occurred. The wetness indicator is particularly described as either comprising a dye agent, a temperature signal (column 3, lines 1 to 10 and column 10, lines 1 to 34) or a swelling indicating agent (column 10, lines 52 to 68). For a tampon utilizing a compound having a heating or cooling sensation as an indicator, the distal end of the tampon is impregnated or coated with the indicator (column 10, lines 35 to 38). Such an impregnation or coating of the article cannot constitute the claimed temperature change member since it does not represent a distinct member. No indication defining a range for the change of the surface temperature is given.

6.7.3 The appellants reference to D12 as enabling the skilled person to find the concept of a distinct wetness

indicator member is not convincing because the concept of D12 is not related to temperature sensation. D12 relates to disposable training pants and its inventive concept is related to awareness of moistness by a moisture holding sheet which is substantially free from direct absorbing action such that fluid remains in the floating zone and makes babies feel uncomfortable. Therefore, D12 would not allow the modification of the surface temperature further since the sensation of wetness interfered with the temperature sensation and the fluid in the floating zone also defined to a great extent the temperature on the surface. Thus, D12 clearly teaches away from the solution claimed in the patent in suit and leads to an alternative solution of the problem of wearer awareness of urination.

Hence, no suggestion is available to provide a distinct member responsible for a temperature change at the surface of a training pant.

6.8 In order to solve the problem by starting from a known training pant comprising superabsorbent polymer the appellant relied on the fact that superabsorbent polymers are generally used in training pants. From the patent specification (column 8, lines 14 to 16) and also from D12a, it was generally known that superabsorbent polymer released heat during swelling. However, the appellant failed to provide any evidence or convincing arguments why this would result in the claimed temperature change at the surface of the training pant. In so far it has to be taken into account that:

– Superabsorbent polymers are usually distributed within the absorbent structure and within areas which are carefully chosen in order to use their swelling capacity most effectively. This applies generally to training pants and absorbent articles and also for D12. Even referring to a distinct member or layer within the absorbent structure which either solely consists of superabsorbent particles or where this polymer is admixed to the other constituents, the basic idea of these members or layers containing superabsorbent polymer **refers to absorbency** and not to temperature rise.

– D12a demonstrates a temperature rise of about 3°C which is **limited to the superabsorbent polymer itself**. This temperature rise of the superabsorbent polymer itself is not related to the claimed surface temperature change when wet, of from about 5.5°C to about 11.1°C.

– With respect to the assumption that the more superabsorbent polymer used the greater the extent of the temperature change would be, no proof has been provided thereof. A temperature rise at the surface may even be hindered. This applies particularly for superabsorbent polymer where a gel blocking effect occurs in case of too much superabsorbent polymer or its wrong location and distribution since according to D12a, page 3, lines 3 to 5 "when the superabsorbent is swollen, thermal energy can no longer be equally distributed in the gel. At the same time the **swollen gel provides an efficient insulation**."

[emphasis added]. Thus a temperature change on the surface of the article could even be inhibited. Hence, no support is found for the thesis that for superabsorbent polymer, the release of heat is dependent on its amount. On the contrary, the amount of superabsorbent polymer should be limited in order to prevent gel blocking and its related insulation effect.

It follows that the temperature change on the surface of the training pant depends primarily on the nature of the temperature change substance in combination with its location and distribution within the temperature change member as well as the position of the temperature change member within the training pant and that the amount of the temperature change substance is of less importance. Therefore, the argument of the appellant that an increase in the amount of superabsorbent polymer would result in an enhanced effect of temperature change on the surface of a training pant is neither supported nor convincing.

7. Therefore, since the combination of features of claim 1 cannot be derived in an obvious manner from the available prior art or the general knowledge of the skilled person, the subject-matter of claim 1 is found to involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The request for adjournment is rejected.

3. The case is remitted to the First Instance with the order to maintain the patent with the following documents:

   – claims 1 to 25 filed during the oral proceedings

   – description, columns 1, 2, 3, 4, 7, 8, 13, 14, 17 and 18 as filed during the oral proceedings

   – columns 5, 6, 9, 10, 11, 12, 15, 16 and figures 1 to 9 as granted.

The Registrar: The Chairman:

M. Patin P. Alting van Geusau