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D E C I S I O N
of 27 November 2001

Case Number: T 0393/00 - 3.2.1

Application Number: 87107602.2

Publication Number: 0247566

IPC: B65D 1/02

Language of the proceedings: EN

Title of invention:
Refillable polyester beverage bottle

Applicant:
CONTINENTAL PET TECHNOLOGIES, INC.

Opponent:
PEPSICO, Inc.
PLM AB
NISSEI ASB Machine Co., Ltd.
Constar International Holland B.V.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 111(2)

Keyword:
"Binding effect on the Board of Appeal of its earlier decision (yes)"
"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:
T 0016/87, T 0359/96

Catchword:

-



Case Number: T 0393/00 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 27 November 2001

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted 14 February 2000
revoking European patent No. 0 247 566 pursuant
to Article 102(1) EPC.**

Composition of the Board:

Chairman: F. Pröls
Members: S. Crane
G. Weiss

Summary of Facts and Submissions

- I. European patent No. 0 247 566 was granted on 24 March 1993 on the basis of European patent application No. 87 107 602.2.
- II. The granted patent was opposed by the present respondents (opponents 01, 02, 04 and 05) and opponents 03, who subsequently withdrew their opposition. The main grounds relied upon were lack of novelty and/or inventive step (Article 100(a) EPC) and that the patent contained added subject-matter (Article 100(c) EPC).
- III. In a decision posted on 19 February 1996 the Opposition Division revoked the patent on the ground that granted claim 1 as well as the respective claim 1 of all auxiliary requests contained added subject-matter.

That decision was appealed. In its decision T 359/96 of 16 June 1998 the Board held that claim 1 according to the auxiliary request under consideration did not offend against Article 123(2) EPC. It accordingly set the contested decision of the Opposition Division aside and remitted the case to the first instance for further prosecution (Article 111(1) EPC).
- IV. With its second decision posted on 14 February 2000 the opposition again revoked the patent. The reason given for the decision was that the subject-matter of claim 1 lacked inventive step with respect to the prior art according to the documents

DE-A-2 807 949 (D1),

EP-A-0 200 564 (D5).

A notice of appeal against this decision was filed on 13 April 2000 and the fee for appeal paid at the same time. The statement of grounds of appeal was received on 22 June 2000.

V. Oral proceedings before the Board were held on 27 November 2001.

At the oral proceedings the appellants (proprietors of the patent) presented a complete set of documents comprising claims 1 to 13, an adapted description and a sheet of drawings (corresponding to the granted drawings). The claims corresponded to those underlying the contested decision.

Claim 1 reads as follows:

"A returnable transparent refillable container (30) having stress crack resistance, the container (30) being blow molded from a preform (10), biaxially oriented and composed of polyethylene terephthalate (PET) , the container (30) having a container body comprising a transparent, biaxially oriented sidewall, a rigid integral champagne-type base (34) including a chime area (40) having a peripheral contact radius and a recessed central portion, a neck finish (12) for receiving a closure, and an oriented extended tapered portion (36) in the area adjacent said neck finish (12), characterised by the polyethylene terephthalate (PET) having a moderate intrinsic viscosity (IV) of 0.72 to 0.84, the container sidewall being flexible and having from 24 to 30% crystallisation, the container body thickness being 7 to 9 times less than the preform

body wall thickness, the champagne-type base (34) having a low orientation and a thickness greater than the thickness of the sidewall, and the recessed central portion being unoriented, whereby the container (30) is capable of at least five re-use cycles with an absence of crack failure and dimensional stability during each washing and filling cycle whereby the maximum volume deviation over the at least five re-use cycles is $\pm 1.5\%$, in each cycle the container (30) having been subjected to a hot caustic wash at a temperature of about 60°C (140°F) and product filling and capping at a pressure of about $4.05 \times 10^5 \text{ Nm}^{-2}$ (4 Atmospheres)."

Dependent claims 2 to 13 relate to preferred embodiments of the container according to claim 1.

In the alternative the appellants requested maintenance of the patent in amended form on the basis of claims 1 to 10 filed as an auxiliary request with their letter of 26 October 2001.

The respondents requested that the appeal be dismissed and revocation of the patent confirmed.

VI. The arguments put forward by the appellants in support of their main request were substantially as follows:

In its earlier decision the Board had reached certain conclusions about the meaning to be attached to the various terms of claim 1. Since these findings were binding it was evident that the terms had to be interpreted in the same way when evaluating novelty and inventive step. In the light of this it was apparent that none of the features contained in the characterising clause of claim 1 was clearly and

unambiguously disclosed in the closest state of the art represented by document D1, so that the subject-matter of the claim was manifestly novel.

With regard to inventive step the Opposition Division had relied on a combination of the teachings of documents D1 and D5 in arriving at its negative conclusion. But this approach was fundamentally flawed. The person skilled in the art would have had no cause to refer to document D5 at all as it was directed to the solution of a different problem, its teachings were incompatible with those of document D1, and even if despite this the teachings of the two documents were arbitrarily combined then several crucial features of the container claimed would still be absent.

VII. The various arguments of respondents in reply are summarised below:

According to opponents 01 claim 1 of the main request no longer corresponded in substance to the claim remitted by the Board for further prosecution with its earlier decision. Since the facts were no longer the same that decision was not binding on the Board and the question of the conformity of claim 1 under consideration with the requirements of Articles 84 and 123(2) EPC could be reopened. In view of the emphasis now being put by the appellants on the unoriented nature of the recessed central portion of the base it was essential to re-investigate what the extent of this portion was. Another aspect of the claim requiring attention from the point of view of both clarity and added subject-matter was the relationship between the container body thickness and preform body wall thickness.

All of the respondents were of the opinion that some of the features specified in the characterising clause of claim 1, in particular those relating to the form and properties of the base as well as the requirement that the sidewall be relatively more flexible from the base, were at the least implicitly disclosed in document D1. In the view of opponents 05 there were indeed no features in the characterising clause of claim 1 which were capable of distinguishing over the container of document D1, so that the subject-matter of the claim lacked novelty. In particular, opponents 05 argued that the respective claimed ranges for intrinsic viscosity, sidewall crystallization, and wall thickness ratio were merely arbitrary selections from within the broader ranges disclosed in document D1 and devoid of a technical effect.

Opponents 01 on the other hand argued that the subject-matter of claim 1 lacked inventive step with respect to the state of the art according to document D1 considered in the light of the common general knowledge of the skilled person. Any distinguishing features of the claimed container which remained after the implicit disclosure of document D1 was properly taken into account were within the scope of routine experimentation and optimisation. It had not in any case been demonstrated that the claimed container was an improvement over that of document D1 since if the latter could withstand 20 cycles of re-use with caustic washing at 55°C then it could certainly withstand 5 cycles with caustic washing at 60°C. Insofar as opponents 05 argued against inventive step they essentially followed the line adopted by opponents 01.

Opponents 02 and 04 concentrated on arguing lack of

inventive step with respect to documents D1 and D5, with opponents 02 also referring to US-A-4 318 882 (D3). In their opinion documents D5 and/or D3 gave clear indications to the person skilled in the art how to improve the volume stability of a PET container subjected to heat in use. The measures taught in those documents involved the application of the ranges for intrinsic viscosity, sidewall crystallisation and wall thickness reduction ratio specified in claim 1, these being the only genuine distinguishing features over the disclosure of document D1.

Opponents 04 also objected to the various dependent claims of the main request as containing added subject-matter on the basis that they were no longer solely dependent on claim 1 as were the equivalent originally filed claims, thus resulting in new combinations of features.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.
2. Under Article 111(2) EPC, if a Board of Appeal remits the case for further prosecution to the department whose decision was appealed, that department shall be bound by the *ratio decidendi* of the Board, insofar as the facts are the same. In accordance with the established case law of the Boards that binding effect also exists with respect to a Board subsequently entrusted with an appeal against a further decision of the first instance after the case has been remitted.

This principle is fully accepted by the parties in the present case. Nevertheless, the question has been raised, in particular by opponents 01, as to the extent to which the facts are the same taking into account the amendment of claim 1 after the case was remitted and also what they consider to be an interpretation of the terms of the claim advanced by the appellants which differs to that on which the earlier decision of the Board was reached.

Claim 1 of the present main request differs in two respects to the claim under consideration in decision T 359/96 and on the basis of which the matter was remitted to the first instance. In both cases it concerns transfer of features between the preamble and the characterising clause of the claim. In particular, the requirement that the recessed central portion of the champagne-type base be "unoriented" has been moved from the preamble to the characterising clause whereas the presence of an oriented tapered portion in the area adjacent the neck finish has been moved from the characterising clause into the preamble.

In the first paragraph of point 5 of the reasons of the earlier decision it is stated that claim 1 according to the alternative request (ie the claim on the basis of which the case was remitted for further prosecution) did not offend against Article 123(2) EPC. In the third paragraph of the same point the Board emphasised that it had made no analysis of the appropriateness of the two-part form of the claim. That statement alone makes it clear that the previous two-part form of the claim has not played any role in the Board's evaluation of the question of added subject-matter and indeed it is evident that any such consideration would have been

misplaced since the technical content of the claim is independent of the distribution of its features between the preamble and characterising clause. Plainly, therefore, the transfer of features between the preamble and the characterising clause which distinguishes claim 1 of the present main request from the claim remitted to the first instance has not resulted in a situation where the facts are not the same, within the meaning of Article 111(1) EPC, so that a review of the earlier decision of the Board as to the conformity of the claim with Article 123(2) EPC is legally excluded.

Insofar as opponents 01 sought to attack the requirement of claim 1 that the container body thickness is 7 to 9 times less than the preform body wall thickness on the basis of lack of clarity, rather than added subject-matter, the Board notes that this feature was present in the granted claim 1 and has not been introduced or affected by the amendments made to the claim. In accordance with the established jurisprudence of the Boards of Appeal (see for example T 16/87, OJ EPO 1992, 212) an objection of lack of clarity, not being a ground of opposition, can in these circumstances not lead to a finding that the claim is inadmissible. Instead, the feature involved should be interpreted in the light of the description to establish its meaning. To say that one measure is "x times less" than another belongs more to the popular idiom rather than a technical description. In the present case there can however be no doubt that the intended meaning is that the container body thickness is one seventh to one ninth of the preform body wall thickness. Further, although the wording of the claim itself could leave some room for conjecture, it is

clear from the description that it is specifically the container sidewall thickness which is being compared with the equivalent region of the preform.

Lastly, the Board cannot accept the argument of opponents 01 that the feature involved is inherently incapable of distinguishing the claimed container from the prior art as it relies on a comparison with an entity, ie the preform, which no longer exists once the container has been formed. However, the thickness reduction ratio is intimately correlated to the draw ratio and hence the degree of orientation in the container sidewall which is a highly significant factor in determining the overall mechanical properties of the sidewall. In view of this it would seem feasible that an indication of the thickness reduction ratio employed can be drawn from the mechanical and other properties of the container sidewall, taken in conjunction with other features of the container, eg the thickness of the unoriented central portion of the base. In practical terms it may also be assumed that any burden associated with determining whether a potentially infringing container meets this requirement of the claim is likely to fall on the appellants.

The objection of added subject-matter raised by opponents 04 against various dependent claims was not subject of the earlier decision of the Board and must therefore be considered. It is however without merit, being based in global terms solely on a difference in the dependencies of these claims in the original application where they were mainly dependent directly on claim 1 whereas with the equivalent present (and granted) claims the dependency is on any preceding claim. However, what is important is the totality of

the original disclosure and opponents 04 have not sought to identify any particular combination of features which has arisen through the change in dependency which was not in fact originally disclosed. In the absence of an such detailed argument the Board cannot but reject this objection.

3. One of the few things that all the parties agree on is that document D1 represents the closest state of the art. Indeed, among the substantial volume of prior art documents relied upon in the proceedings document D1 is the only one which is concerned with a re-usable PET container for carbonated beverages.

The main thrust of the teachings of document D1 is that by using a PET with a relatively high intrinsic viscosity of 0.85 to 1.5, preferably at least 1, it is possible to manufacture container having walls of sufficient thickness and strength which nevertheless have a glass-clear transparency. The reason for this lies in the lower tendency of the relatively high viscosity PET to crystallisation, cf. in particular page 4, paragraph 2 and the paragraph bridging pages 4 and 5.

The wall thickness of the container is preferably 0.5 to 1.0 mm, but may go up to 5 mm or more, with the container being formed by mechanical/pneumatic thermo-elastic stretching from a preform having a wall thickness of the order of 4 to 8 mm. The bottom wall of the container may be made with sufficient strength by means of material accumulation and partial reverse stretching, for example as disclosed in DE-A-2 406 335 (corresponding to GB-A-1 459 521) cf. page 6, paragraph 3 of D1. The stretching ratio varies from 1.0

to 6.1 across the bottom wall, with preferably a constant increase of thickness towards the centre, cf. the paragraph bridging pages 9 and 10.

The container produced according to the teachings of document D1 is resistant when empty to localised forces of up to 500 N, can survive being dropped from 4 m when filled with a carbonated beverage at a pressure of up to 10 bar and is capable of being washed at 55°C with conventional cleaning agents, including caustic soda, without significant volume change, thus allowing it to be re-used at least 15 times, cf. page 8, last paragraph to page 9, second paragraph and page 10, last paragraph.

In the opinion of the respondents present claim 1 is not properly delimited with respect to document D1. They argued that some, or in the case of opponents 05 all, of the features of the characterising clause of the claim are either at least implicitly disclosed in this prior art document or inherently incapable of distinguishing the claimed container from it. It is therefore necessary to consider each of the features specified in the characterising clause of the claim in more detail.

The first requirement is that the PET of the container has an intrinsic viscosity of 0.72 to 0.84, compared to the range of 0.85 to 1.5 stated in document D1. Here the respondents have advanced two lines of argument. The first is that the degree of inaccuracy in the measurement of intrinsic viscosity is such that in particle terms these ranges overlap. They have not however provided any concrete evidence to support this assertion and given the emphasis in document D1 on the

benefits of PET with a relatively high intrinsic viscosity, preferably at least 1, the person skilled in the art would not in any case have been encouraged to operate at the very bottom of the range specified there. The second argument is that the limitation of the range to 0.72 to 0.84 in claim 1 is purely arbitrary and not the result of a purposive selection. They seek to back this up with reference to the table found on page 4 of the patent specification from which it can allegedly be derived that a container made from PET with an intrinsic viscosity of 1.06 is superior to one made from PET with an intrinsic viscosity of 0.72. However, this argument is fundamentally misconstrued as the table in question does not relate to containers with a structure as claimed but rather to those made according to known techniques.

As determined in the earlier decision of the Board, T 359/96, point 3.1 of the reasons, the requirement that the container sidewall be "flexible" can only be seen in relative terms in comparison with the requirement, stated in the preamble of the claim, that the base of the container be "rigid". There is no clear and unambiguous teaching in document D1 which could lead to be ineluctable conclusion that the sidewall of the container disclosed there is more flexible than its base. No specific measurements for relative wall thickness are given and although particular means are proposed to increase the strength of the base (cf. DE-A-2 406 335 mentioned above), emphasis is also placed on the resistance of the walls generally to high localised forces. Essentially the teaching of document D1 goes to a container with comparable properties of strength and transparency to one of glass, where in principle the sidewall and base are of

equivalent rigidity.

The next requirement concerns the degree of crystallisation of the sidewall, which is in the range of 24 to 30%. Here, opponents 05 argued that the lower limit of 24% was once again arbitrary. They relied on submissions made by the appellants in the earlier proceedings leading to decision T 359/96 in which they sought to defend a broader definition where the crystallisation was merely limited to "up to 30%". However, the Board could not accept those submissions and held, see point 3.3 of the reasons, that sidewall crystallisation in the range of 24 to 30% was taught in the original application as being an essential feature of a viable re-usable PET container. The setting of the lower limit of the range is therefore not arbitrary, but purposive. Furthermore, there can be no suggestion that the person skilled in the art following the proposals of document D1 would automatically end up with a sidewall crystallisation within the range claimed. One of the inventors named in document D1 (Mr Stelzner) stated in his affidavit filed by opponents 05 with their letter of 16 December 1999 that the crystallinity of the containers involved was typically less than 20%. In an earlier affidavit of a Mr Neumann filed by opponents 04 with their letter dated 26 July 1995 it is stated that the low crystallinity referred to in document D1 would be of the order of 8 to 12%.

The meaning of the requirement that the container body thickness be 7 to 9 times less than the preform body wall thickness has already been discussed above. In the contested decision the Opposition Division computed a notional range of wall thickness reduction of from 4 to

16 times (retaining for simplicity the idiom of the claim) from the disclosure of a preferred sidewall thickness of 0.5 to 1.0 mm and a preform wall thickness of 4 to 8 mm. Given, however, that the document also specifically envisages greater wall thicknesses, up to 5 mm, it would seem that the lower end point of the range should be smaller than 4. Be that as it may, it is clear that the claimed range of 7 to 9 is a narrow selection within the assumed notional disclosure of document. Furthermore, the specific example given in page 7, paragraph 3, of a stretch ratio of 1:4.5 correlates to an equivalent wall thickness reduction ratio significantly lower than that claimed.

In addition to the features of the sidewall discussed above the characterising clause of the claim specifies three features of the champagne type base, all of which are in dispute. These are that the base has a low orientation, is thicker than the sidewall, and that its recessed central portion is unoriented.

As established in decision T 359/96, point 3.2 of the reasons, the requirement that the base have "low orientation" refers to the degree of its orientation considered as a whole in comparison with the degree of orientation of the sidewall. A definitive comparison in this context cannot be made with respect to the base and sidewall of the container disclosed in document D1. Indeed, given that areas of the base of the known container may be produced with a stretch ratio of up to 1:6, whereas a preferred stretch ratio of the sidewall is given as 1:4.5, it would appear that at least some areas of the base will be more highly oriented than the sidewall.

A clear and unambiguous teaching with regard to the relative thickness of the base and the sidewall also cannot be derived from the disclosure of document D1. Insofar as that document refers to thickening of areas of the base there is no clear reference point for the comparison, it could equally well refer to the other areas of the base rather than the sidewall (this is the situation found in document D19 referred to in this context in document D1). The respondents also sought to rely on the drawing of document D1 as an alternative or additional source of information as to the relative thickness of the base and the sidewall of the prior art container. However, at least with respect to the thickness of the sidewall and base of the container illustrated, this drawing is merely schematic and certainly cannot be seen as teaching that the base as a whole is thickened with respect to the sidewall.

Lastly, it was the requirement that the recessed central portion of the base be unoriented that was the most contentiously disputed feature of the claim, with both the appellants and the respondents seeking to support their arguments by reference to what the Board had said in this context in its earlier decision, in particular in point 3.2 of the reasons. However, here the Board must emphasise that the questions of whether the base included an unoriented recessed central portion and if so the meaning of that term were not addressed in the earlier decision which was concerned solely with the original disclosure of certain features of claim 1 and by necessary extension the meaning of those features, whereas original claim 8 for example specifically states that the container has a champagne type base including a peripheral contact radius and an unoriented recessed central portion so that the

original disclosure of these features was not in dispute. Nevertheless, it can be fairly said that there is nothing in the earlier decision which suggests that the Board, when coming to the conclusions it did, had understood the term "recessed central portion" as being anything other than the whole of the recessed area of the base within the peripheral contact radius. Indeed on the basis of the description and drawings of the original application no other interpretation seems possible as there are only two areas of the base identified therein, namely the chime area with its peripheral contact radius and the recessed central portion.

The arguments of the respondents go however in a different direction. They contend that with a recessed central portion as defined above it would be technically impossible for this to be unoriented as some stretching of the preform in the relevant area must occur, and with it orientation of the PET material. As a consequence the only region of the base which could be unoriented was a small one at its geometrical centre and it was thus this area which defines the "unoriented recessed central portion" of the claim. However, it also had to be the case in the container disclosed in document D1 that a small central area of the base remained un-stretched and unoriented, the upshot therefore being that the requirement of claim 1 that the recessed central portion is unoriented did not distinguish from the disclosure of document D1.

The Board does not find this line of argument persuasive. The requirement in question has to be seen in the eyes of the skilled person who would not understand the meaning of "unoriented" literally as

being that there is "zero orientation" as argued by the appellants but in the technical sense that any small amount of orientation present is insignificant with respect to the properties of the material. The Board can see no reason why, at a technical level, it would not be possible following the teachings of the patent specification and with suitable routine adjustment of the stretch/blow moulding conditions prevailing to produce a container with a recessed central portion as defined above which is "unoriented" in this sense.

The Board therefore comes to the conclusion that all of the physical and structural features specified in the characterising clause of claim 1 properly distinguish the claimed subject-matter from the container of document D1. This subject-matter is therefore novel. In these circumstances there is no need to go into the question of whether the performance requirement stated at the end of the claim is in itself a separate technical feature which is capable of providing an independent distinction over the prior art.

4. Having established the novelty of the subject-matter of claim 1 it is necessary to turn to the question of inventive step. To a significant extent however it can be said that the evaluation of inventive step has been pre-empted by the above considerations as to what features distinguish the claimed subject-matter from the closest state of the art, since all of the respondents when arguing against inventive step relied at least in part on their various contentions that certain of the features contained in the characterising clause were in fact already disclosed in document D1.

The technical problem which the claimed invention sets

out to solve is the provision of a commercially viable refillable PET container for carbonated liquids, in particular beverages, which is capable of retaining its aesthetic properties and functional performance over at least five complete refill cycles, each of those cycles comprising the steps specified in the last part of claim 1. The respondents do not dispute that this problem has been solved by the provision of a container as claimed. What they do dispute however is that some of the features specified in the characterising clause of claim 1 make a contribution to the solution of the problem with the consequence, in their view, that they should be disregarded when investigating inventive step. This line of argument was pursued as an addition or alternative to the arguments dealt with above as to whether the features involved were already comprised in the state of the art according to document D1. The Board can however see no convincing justification for departing from the premise that it is the combination of all of the technical features specified in the claim which leads to the technical success of the claimed invention.

Apart from the issue of whether certain features contributed to the solution of the technical problem, as discussed above, the arguments on obviousness concentrated mainly on the teachings of document D5. As an aside it should be mentioned here that this document was published after the first priority date claimed for the contested patent, but before the second. The Opposition Division established however that the subject-matter of claim 1 was only entitled to that second priority date and that accordingly document D5 belonged to the state of the art. The Board concurs with that finding, which has not been challenged by the

appellants.

Document D5 relates to a "hot fill" container of biaxially oriented PET. By "hot fill" is meant a container which is capable of being filled with products in the 160° to 200°F (71° to 93°C) temperature range and sealed at or near the filling temperature. Such a container has to meet two essential requirements. Firstly, the amount of shrinkage of the wall of the container caused by it being heated near to or above the glass transition temperature of PET must be within acceptable limits. Secondly, the container has to be resistant to collapse or buckling as a result of the volume contraction of the product as it cools. The particular concern of document D5 is with the first of these requirements. As stated there in claim 1 the composition of the PET, the draw ratio during forming and the reheat conditions are chosen to give a sidewall crystallinity of 14% to 28%. In Example 4 the inherent viscosity of the PET is 0.80 ± 0.1 , the wall thickness reduction is 1:12 and the resulting crystallinity can be computed to be of the order of 20%. The overall volume loss on hot filling at 190°F (89°C) was 5.2%. According to dependent claim 4 the preferred total wall draw ratio is in the range 8 to 10 to 1.

Document D3, referred to supplementarily in opponents 02, also relates to a hot fill container and is concerned with measures to increase the crystallinity of at least part of the sidewall to 28% to 32%, this part of the sidewall then being reshaped to provide a thermoelastically deformable region for relieving pressure forces on cooling of the product.

In the opinion of the respondents the skilled person

would see in the state of the art discussed above a valuable indication as to how to increase the volume stability of a biaxially oriented PET container subjected to heat in general and would therefore have had an incentive to incorporate the measures taught in the documents involved into a refillable PET container in order to enable it to withstand a commercially viable number of washing cycles at 60°C. However, given that there are in the two cases distinct differences in what is being sought in the way of thermal volume stability, the Board does not find this argument wholly persuasive. Furthermore, it must also be borne in mind that thermal volume stability is only one of the requirements that a refillable PET container has to meet. Another crucial one is resistance to stress cracking under the combined influence of the caustic washing agents employed and the pressure generated by the carbonated product. Documents D5 and D3 are of course by their very nature wholly silent on this aspect.

In any case, even if the skilled person were led by the teachings of document D5 (document D3 is more remote and does not need to be considered further) to modify the refillable container of document D1 in the direction of using a PET with an intrinsic viscosity in the range of 0.72 to 0.84, having a preform to container body sidewall thickness in the range of 7 to 9 and aiming towards a sidewall crystallisation of 24 to 30%, then there is certainly nothing in the document which could at the same time have led him to the particular physical form and structure of the base of the container as set out in the characterising clause of claim 1. Indeed, if anything, document D5 must be seen as teaching away from such a base structure since

the general idea underlying this prior art proposal is the elimination of extensive regions of low orientation, see for example page 16, second paragraph.

5. The Board therefore comes to the conclusion that the subject-matter of claim 1 of the main request is novel and involves an inventive step (Articles 54 and 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent on the basis of the documents submitted at the oral proceedings.

The Registrar:

The Chairman:

S. Fabiani

F. Pröls