

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 13 October 2016**

Case Number: T 1597/13 - 3.3.07

Application Number: 04738981.2

Publication Number: 1765304

IPC: A61K9/24

Language of the proceedings: EN

Title of invention:

Compressed chewing gum tablet

Patent Proprietor:

Gumlink A/S

Opponent:

WM. Wrigley Jr. Company

Relevant legal provisions:

EPC Art. 56

RPBA Art. 13(3)

Keyword:

Inventive step - (yes)



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1597/13 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 13 October 2016

Appellant: Gumlink A/S
(Patent Proprietor) Dandyvej 19
7100 Vejle (DK)

Representative: Hoffmann Eitle
Patent- und Rechtsanwälte PartmbB
Arabellastraße 30
81925 München (DE)

Respondent: WM. Wrigley Jr. Company
(Opponent) 1132 West Blackhawk Street
Chicago, IL 60622 (US)

Representative: Nash, David Allan
Haseltine Lake LLP
Redcliff Quay
120 Redcliff Street
Bristol BS1 6HU (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
3 May 2013 concerning maintenance of the
European Patent No. 1765304 in amended form.**

Composition of the Board:

Chairman J. Riolo
Members: A. Usuelli
P. Schmitz

Summary of Facts and Submissions

- I. European patent No. 1 765 304, based on European patent application No. 04738981.2, was opposed on the grounds that its subject-matter lacked novelty and inventive step (Article 100(a) EPC).

The following documents were among those cited during the first-instance proceedings:

D3: WO2004/004479

D4: US 4,139,589

D5: WO 2004/006686

D7: US 2004/0058033

- II. By an interlocutory decision posted on 3 May 2013, the opposition division maintained the patent in amended form. The decision was based on a main request filed on 19 November 2012 and an auxiliary request filed during the oral proceedings held on 19 December 2012.

Claim 1 of the main request read as follows:

"1. Chewing gum tablet (10, 20, 30, 40, 50) comprising at least two cohered chewing gum modules (11, 12; 21, 22, 23; 31, 32; 41, 42; 51, 52), said tableted chewing gum being formed by compression of chewing gum granules, at least one of said chewing gum modules comprising gum base granules, said gum base granules comprising an elastomer system, said chewing gum tablet comprising an elastomer system in an amount of at least 10% by weight of the chewing gum tablet, wherein at least 10% by weight of the elastomer system comprises polyvinyl acetate".

The main request contained an additional independent claim relating to a method of tableting a chewing gum tablet according to claim 1 (claim 34).

The set of claims according to the auxiliary request related to a chewing gum tablet differing from the tablet defined in claim 1 of the main request in that its elastomer system comprised at least 30% of polyvinyl acetate instead of at least 10%.

III. In its decision, the opposition division held that the subject-matter of the main request was novel. In relation to the assessment of inventive step, it considered that the subject-matter of claim 1 of the main request differed from example 1 of D5 in the requirement of comprising an elastomer system in an amount of at least 10% by weight and in that said elastomer system comprised at least 10% of polyvinyl acetate (PVA). The experimental data disclosed in the patent showed that an elastomer content of at least 10% provided an acceptable texture. The technical problem was to be seen in the "desire to improve the chewing gum tablet of D5 such as to guarantee an acceptable texture of the compressed chewing gum tablet". Document D7 disclosed a chewing gum comprising a soft basic gum containing at least 34% of PVA. The skilled person would have contemplated replacing the gum base of the chewing gum of D5 with the soft basic gum of D7. The subject-matter of claim 1 was therefore obvious in view of the combined teachings of documents D5 and D7. The opposition division considered that claim 1 was obvious also when starting from document D4 as the closest prior art, in view of the combination with D7.

Concerning the subject-matter of claim 1 of the auxiliary request the opposition division considered

that there was no incentive for the skilled person to select within the teaching of D7 the specific soft basic gum which, introduced into example 1 of D5, would have made it possible to arrive at the chewing gum tablet defined in claim 1 of auxiliary request 1. Thus, claim 1 was inventive over the combined teachings of D5 and D7.

- IV. The patent proprietor (appellant) lodged an appeal against that decision. It requested that the decision under appeal be set aside and that the patent be maintained on the basis of a main or an auxiliary request, both filed with the statement setting out the grounds of appeal on 11 September 2013.

The main request was identical to the main request rejected by the opposition division (see point II above).

Claim 1 of the auxiliary request differed from claim 1 of the main request in that the elastomer system of the gum tablet comprised at least 20% of polyvinyl acetate instead of at least 10%.

- V. The opponent (respondent) replied to the appeal with letter of 28 January 2014.
- VI. Oral proceedings were held on 13 October 2016.
- VII. The appellant's arguments, as far as relevant to the present decision, can be summarised as follows:

The closest prior art was document D5. Document D4 was not an appropriate starting point for the assessment of inventive step because it did not discuss the organoleptic properties of the chewing gum disclosed

therein. The elastomer content represented the key feature of the chewing gum defined in claim 1 of the main request. Document D5 did not disclose the amount of elastomer contained in the chewing gum. Furthermore, the chewing gum of D5 did not contain PVA. A direct comparison with the chewing gum of D5 was not possible in that it contained as gum base the product Artica T[®] whose composition was not known and which was not available. However, the experimental data disclosed in the patent showed that an elastomer content of at least 10% resulted in an improvement of the chewing gum's texture. The respondent's criticism of the experimental data disclosed in the patent was a fresh argument submitted for the first time during the oral proceedings before the Board. The appellant could have considered submitting further experimental data if the respondent had submitted its observations earlier. The respondent's arguments in relation to the experimental data of the patent were therefore to be disregarded. Alternatively, the oral proceedings should be adjourned. The technical problem was to be seen in the provision of a chewing gum having a good texture. Document D7 disclosed in column 2 a family of gum bases comprising different components in variable amounts. PVA was one of the components of the gum bases of D7. This document did not however disclose any specific gum base with a defined composition. Replacing the gum base of the chewing gum of D5 with the gum bases of D7 did not necessarily result in a chewing gum tablet comprising at least 10% of elastomer system as required by claim 1 of the patent in suit. Thus, the skilled person had to select a narrow group of gum bases within the general disclosure of D7. However, this document did not provide any teaching as to the effect of the composition of the gum base on the texture of the chewing gum.

VIII. The respondent's arguments, as far as relevant to the present decision, can be summarised as follows:

Documents D4 and D5 were both suitable starting points for the assessment of inventive step.

The chewing gum defined in claim 1 of the main request differed from the formulation disclosed in example 1 of D5 by the presence of PVA and by the amount of elastomer system. The use of PVA in the elastomer system did not provide any technical advantage. Moreover, PVA was commonly used in the preparation of chewing gums. The experimental data disclosed in Tables 1 to 4 of the patent did not support inventive step. These data were based on the subjective evaluation of the texture, a property which was not clearly defined in the patent and which was not measurable. The data of the patent were also erroneous since in some cases the actual amount of elastomer system was different from that reported in the tables. Thus, contrary to the appellant's position, these data did not constitute evidence of an effect linked to the amount of elastomer system. According to D5, any gum base could be used in the chewing gums disclosed therein. Thus, the skilled person would have considered replacing the gum base used in the chewing gum disclosed in example 1 of D5 with any one of the gum bases included in the group described in document D7 which contained PVA as one of the components. In this manner he would have arrived at the subject-matter of claim 1 without any inventive effort.

D4 could also be taken as the closest prior art. The chewing gum tablet disclosed in example 1 of this document differed from the tablet claimed in the patent

in suit in that it contained chicle gum instead of PVA. The appellant had not shown any effect associated with the use of PVA in the elastomer system. The technical problem was to be formulated as the provision of an alternative chewing gum tablet to that of example 1 of D4. As illustrated for instance in D3 and D7, PVA was a well-known synthetic gum at the priority date of the patent. The skilled person also knew that PVA offered the advantage of being less sticky than chicle gum. The latter was an old gum commonly used at the filing date of D4 but rarely used nowadays. Accordingly, it would have been obvious for the skilled person to replace, at least partially, the chicle gum used in the formulation of D4 with PVA. The fact that chicle gum was an old elastomer no longer in use was an additional incentive to replace it with PVA. Thus, the subject-matter of the patent was obvious also when starting from document D4 as the closest prior art.

- IX. The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or on the basis of the auxiliary request filed with the statement setting out the grounds of appeal dated 11 September 2013.
- X. The respondent requested that the appeal be dismissed.

Reasons for the Decision

Main request

The only issue at stake in the present appeal proceedings is that of inventive step.

1. Inventive step

The patent in suit relates to the problem of providing a compressed chewing gum tablet having an acceptable texture and mouth-feel (paragraphs [0017] to [0021] of the patent specification).

1.1 Closest prior art

1.1.1 It was disputed between the parties whether D4 or D5 should be considered as the closest prior art.

The Board agrees with the appellant that D5 represents the closest prior art because it addresses issues concerning the effects of chewing gum tablets in the mouth. More specifically, an objective of the inventors of D5 was to provide a chewing gum characterised by a "novel effect in the mouth by giving an initial crunch followed by a normal chewing gum stage" (page 1, lines 1 to 4). These effects are closely related to the texture of the tablets, a property which is discussed in the description of the patent in suit (see for instance paragraph [0017]) and which is tested in the examples.

Document D4 on the other hand is more focused on issues relating to the production of the chewing gum tablets, and provides little information as to the effects of the tablets on the mouth. Furthermore, as highlighted also by the respondent, the tablets disclosed in all the examples of D4 contain chicle gum as the gum base. This natural product was commonly used as a chewing gum ingredient at the filing date of D4, i.e. 1979, but it was later replaced by other gum bases, mainly based on synthetic elastomers. In the Board's view, it is highly unlikely to expect that a skilled person would use as

the starting point of his research a document describing obsolete products. Also for this reason document D4 does not qualify as the closest prior art.

- 1.1.2 Document D5 discloses in example 1 a two-layered chewing gum. The first layer comprises as gum base the product Artica-T, which is composed of purified elastomeric polymers, resins, refined waxes, glycerol esters of edible fatty acids, talc and antioxidants.

The chewing gum tablet defined in claim 1 of the main request differs from the product of example 1 of D5 in the mandatory presence of PVA. Furthermore, since no information is given in D5 as to the relative amounts of the components of the gum base Artica-T, it cannot be derived from this document whether the elastomer system is present in an amount of at least 10% by weight of the tablet.

- 1.2 Technical problem

- 1.2.1 The description of the patent (paragraphs [0220] to [0223]) discloses an experiment in which the texture of 36 chewing gum tablets containing different amounts of elastomer system is evaluated. From various passages of the description it can be understood that an acceptable texture means in particular a good initial chew (see e.g. paragraphs [0020] and [0023]).

The data reported in Tables 1 to 4 show that all the chewing gum tablets containing at least 10% of elastomer system (examples 8, 10, 11 to 18, 26, 27 and 29 to 36) have an acceptable texture. On the other hand a not-acceptable texture is reported for the chewing gum tablets of examples 1 to 7, 10 and 19 to 25 which contain less than 10% of elastomer system. A single

chewing gum tablet containing less than 10% of elastomer system (example 28, with 9% of elastomer system) provides acceptable results in terms of texture.

These data do not allow any comparison to be made with the product of example 1 of D5, which contains a different gum base and an unknown amount of elastomer system. Nevertheless, the experiment of the patent convincingly demonstrates that the texture of the tablet depends on the amount of elastomer system and that an amount of at least 10% is important in order to achieve satisfactory results.

- 1.2.2 The Board agrees with the respondent's position that texture is not a property that can be precisely quantified. This is however no reason to disregard the experimental results disclosed in the patent which are based on a sensory evaluation of the texture. Indeed sensory assessments are commonly used when the property to be evaluated relates to a sensory experience, such as mouth-feeling. More objective methods, based for instance on instrumental measurements, are usually not available in such cases. The Board notes in this regard that also in documents D5 (see examples 1 and 2) and D7 (see paragraph [0082]), sensory methods are used to assess the chewing gum's performance.
- 1.2.3 During the oral proceedings the respondent argued that the experimental results disclosed in the patent were affected by some errors concerning the calculation of the percentage of elastomer system by weight of the chewing gum tablet. This argument was submitted also during the first-instance proceedings, with the letter dated 20 October 2011. The opposition division came

nevertheless to the following conclusion in point 2.3 of its decision:

"According to the experimental data given in the patent, an elastomer content of at least 10% by weight of the chewing gum tablet consistently provides for an acceptable texture, whereas a lower amount of elastomer has been found unsatisfactory in most cases (with the single exception of example 28). This conclusion is in accordance with the reassessment of the data submitted by O1 (cf. submissions of 20-10-2011, in particular the table on p. 2)" (O1 being present respondent).

This conclusion was not disputed by the respondent, which did not submit any arguments regarding the experimental data of the patent in its reply to the grounds of appeal dated 28 January 2014. During the appeal proceedings, the objection that the experimental data of the patent were incorrect was presented for the first time at the oral proceedings.

- 1.2.4 In respect of this late argument of the respondent, the Board emphasises that it cannot be expected to verify during the oral proceedings whether the data in Tables 1 to 4 of the patent are affected by errors in the calculation of the amount of elastomer system, and if so whether the errors are so serious as to invalidate the conclusion that an elastomer content of at least 10% provides an acceptable texture of the chewing gum. Moreover, the Board has also to consider the legitimate position expressed by the appellant at the oral proceedings, namely that it could have considered submitting new experiments if the respondent had raised its objection in due time. Equally legitimate is also the appellant's request to adjourn the oral proceedings if the late-submitted argument were admitted into the

proceedings. Under these circumstances, in line with the position expressed by the appellant, the Board decides not to admit into the appeal proceedings the new submissions of the respondent (Article 13(3) RPBA).

Accordingly, the Board can only confirm the conclusion expressed by the opposition division in point 2.3 of the decision (see point 1.2.3 above).

- 1.2.5 In view of the above, the technical problem is defined as the provision of a multi-layered chewing gum tablet having an acceptable texture.
- 1.3 Obviousness
 - 1.3.1 In the respondent's view, the skilled person would have considered replacing in the chewing gum of D5 the gum base Artica-T with the gum base disclosed in paragraphs [0032] to [0040] of D7, which contains PVA as one of its components. In this manner, he would have obtained a chewing gum tablet as defined in claim 1 of the main request.
 - 1.3.2 As observed by the appellant, document D7 does not disclose a specific gum base. It rather describes a family of products which contain variable amounts of different components such as elastomers, PVA, resins and emulsifiers. Nor do the examples of D7 describe any specific gum base, i.e. a product with a defined amount of each component.
 - 1.3.3 Since document D5 indicates that the chewing gums disclosed therein may contain any well-known gum base (page 2, last complete sentence), in the Board's view the skilled person would in principle consider the possibility of replacing Artica-T with the gum bases of

D7. However, since D7 does not disclose any individual gum base, he would need to select some specific gums within the general group of products disclosed in paragraphs [0032] to [0040]. In doing that, he would have to take account of his objective, namely to provide a chewing gum having an acceptable texture.

- 1.3.4 As remarked by the appellant and by the opposition division in its decision (points 2.8 and 2.9), replacing in the composition of example 1 of D5 Artica-T gum with the basic gum of D7 does not necessarily lead to a chewing gum tablet having an amount of elastomer system falling within the range defined in claim 1. This depends on the exact composition of the soft basic gum selected in the group of gums disclosed in D7. The opposition division calculated that the chewing gum tablet obtained by replacing in the product of example 1 of D5 Artica-T with an equivalent amount of the basic gum of D7 would have an elastomer content of between 5.8% and 11% based on the total weight of the chewing gum tablet. Both parties confirmed the correctness of this calculation.

Thus, only a portion of the gum bases comprised in the general class of gums disclosed in D7 would give rise to a tablet having at least 10% of elastomer system, if these gum bases were used in the tablets of D5 instead of Artica-T. As discussed above, an amount of 10% of elastomer system represents a minimum threshold for an acceptable texture.

- 1.3.5 Document D7 does not provide any teaching that could assist the skilled person in selecting the right composition of the gum base in order to obtain a chewing gum tablet having an appropriate texture. Nor

is there any relevant information in this regard in the other cited prior-art documents.

Thus, the skilled person faced with the technical problem defined above would have no guidance on how to select an appropriate gum base within the family of gum bases disclosed in D7.

- 1.3.6 It follows from the above arguments that claim 1 meets the requirements of inventive step.

Independent claim 34 is also considered to comply with the requirements of Article 56 EPC in that it relates to a method of tableting a chewing gum tablet according to claim 1.

- 1.4 For the sake of completeness, the Board observes that the same conclusion would be reached starting from document D4 as the closest prior art.

This document does not provide any teaching in relation to the texture of the compositions disclosed therein. As discussed above, D4 is mainly concerned with issues concerning the production of the tablets. Thus, a skilled person seeking to provide a chewing gum tablet with an appropriate texture would not know which chewing gum to select, among those disclosed in D4, as the starting point for his research and would not know how to modify it.

Furthermore, D4 relates to multi-zone tablets comprising a plastic chewing gum mass. As explained in column 2 (lines 37 to 47), this plastic mass has adhesive properties which are important for increasing the resistance of the whole tablet to breakage (see also column 4, lines 62 to 64). Thus, a good

adhesiveness is a required property of the plastic mass of the tablets of D4. In the examples, the plastic mass contains chicle gum. The parties did not dispute that this gum is a tacky material.

In the Board's view, the skilled person would be very cautious in modifying the properties of the plastic mass of the composition of D4, e.g. by replacing the chicle gum with PVA, as suggested by the respondent, since this could potentially affect the adhesive properties of the mass. In other words, the Board considers it unlikely that the skilled person would modify the chewing gum of D4 in a way which appears to disregard its teaching.

Thus, the claims of the main request comply with the requirements of Article 56 EPC also when document D4 is selected as the closest prior art.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the opposition division with the order to maintain the patent on the basis of the claims of the main request and a description still to be adapted.

The Registrar:

The Chairman:



S. Fabiani

J. Riolo

Decision electronically authenticated