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Datasheet for the decision of 26 November 2019

Case Number: T 0031/18 - 3.3.07

Application Number: 03722519.0

Publication Number: 1501485

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Language of the proceedings: EN

Title of invention:
HIGH DRUG LOAD TABLET

Patent Proprietor:
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Novartis Pharma GmbH

Opponents:
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Headword:
HIGH DRUG LOAD TABLET/Novartis AG, Novartis Pharma GmbH

Relevant legal provisions:
RPBA Art. 13(1)
EPC Art. 56

Keyword:
Admission of late filed documents (No)
All requests - Inventive step (no)
Experiments submitted after the filing date as evidence for inventive step - Taken in consideration (yes)

Decisions cited:
T 0571/11

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 0031/18 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 26 November 2019

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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted on 16 October 2017 concerning maintenance of the European Patent No. 1501485 in amended form.**

Composition of the Board:

Chairman J. Riolo
Members: D. Boulois
P. Schmitz

Summary of Facts and Submissions

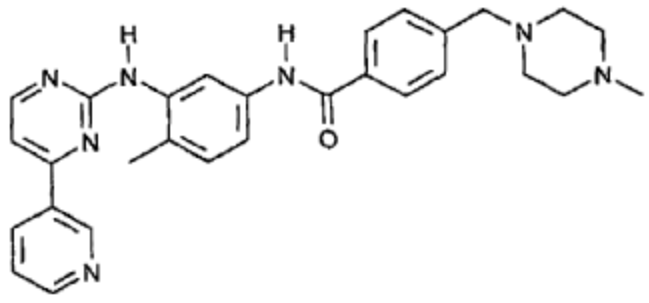
I. European patent No. 1 501 485 was granted on the basis of a set of 14 claims.

II. Nine oppositions were filed under Article 100 (a) and (b) EPC against the granted patent on the grounds that its subject-matter lacked novelty and inventive step and was not sufficiently disclosed.

III. A first decision T 0571/11 was taken by the Board of Appeal. This decision was based on the claims as granted as main request and on auxiliary request 5 filed with letter dated 18 October 2011. The case was remitted to the opposition division for further prosecution on the basis of auxiliary request 5.

Independent claim 1 of auxiliary request 5 read as follows:

"1. A tablet comprising a pharmacologically effective amount of Compound I



(1)

or a pharmaceutically acceptable salt thereof in an amount from about 30% to 80% in weight of the active moiety based on the total weight of the tablet and

cross-linked polyvinylpyrrolidone from 10% to 35% by weight based on the total weight of the tablet."

IV. The appeal lies from the decision of the opposition division finding that the patent in amended form meets the requirements of the EPC. The decision was based on auxiliary request 5 as remitted by the Board.

V. The documents cited during the opposition proceedings included the following:
C1: WO 99/03854
C3: "Remington: The Science and Practice of Pharmacy", 20th Edition, Chapter 45, 2000
C6: "Pharmaceutical Dosage Forms: Tablets, Volume 1", Second Edition, pages 79-81 and Chapters 3 and 4, 1989, and Volume 2, page 9
C7: WO 01/47507
C57: Handbook of Pharmaceutical Excipients, A.H. Kibbe, Ed., 2000
C70: Experimental Report 2
C76: Declaration of Vincent Rogue and Hans-Ulrich Kuenzler
C77: Rudnic et al., Drug Development and Industrial Pharmacy, 1980, 6(3), 291-309
C78: A.H. Bronnsak, Pharm. Ind., 40, pages 1255-1263, 1978
C81: J. Gillard, Acta Pharmaceutica Technologica, 26, pages 290-292, 1980
C84: S.S. Kornblum et al., J. Pharm. Scz., 62(1), 43-49, 1973

VI. According to the decision under appeal, claim 1 met the requirements of Article 84 EPC in view of the claimed amounts of compound I (imatinib).

A basis for claim 1 was found in claims 1, 7 and 8 of the application as filed, and the requirements of Article 123(2) EPC were met.

As regards inventive step, example 8 of C7 (identical to example 4 of C1) was the closest prior art. The claimed subject-matter differed in the amounts of compound I and cross-linked PVP. The problem to be solved was the provision of compound I tablets improving patients compliance. The solution was not obvious in view of the cited prior art.

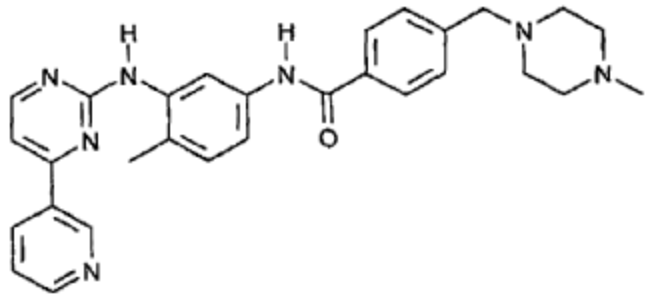
VII. Opponents 02 and 09 (hereinafter appellants 02 and 09) filed an appeal against said decision.

VIII. With a letter dated 11 July 2018, the patent proprietors (hereinafter the respondents) filed a main request (corresponding to auxiliary request 5 on which the decision was based) and auxiliary requests 1 to 3.

Independent claim 1 of the auxiliary requests read as follows, difference(s) compared with claim 1 of the main request shown in bold:

Auxiliary request 1

"1. A tablet comprising a pharmacologically effective amount of Compound I

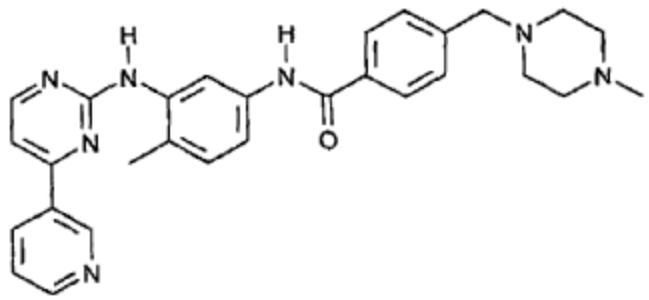


(1)

or a pharmaceutically acceptable salt thereof in an amount from about 30% to 80% in weight of the active moiety based on the total weight of the tablet and cross-linked polyvinylpyrrolidone from 10% to 35% by weight based on the total weight of the tablet, **wherein Compound I of formula (1) is the monomesylate salt form."**

Auxiliary request 2

"1. A tablet comprising a pharmacologically effective amount of Compound I

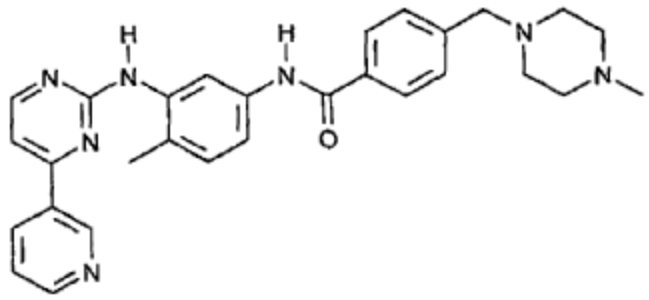


(1)

or a pharmaceutically acceptable salt thereof in an amount from about 30% to 80% in weight of the active moiety based on the total weight of the tablet **and disintegrant in a total amount of from 10% to 35% in weight based on the total weight of the tablet, wherein the disintegrant is cross-linked polyvinylpyrrolidone."**

Auxiliary request 3

"1. A tablet comprising a pharmacologically effective amount of Compound I



(1)

or a pharmaceutically acceptable salt thereof in an amount from about 30% to 80% in weight of the active moiety based on the total weight of the tablet **and disintegrant in a total amount of from 10% to 35% in weight based on the total weight of the tablet, wherein the disintegrant is cross-linked polyvinylpyrrolidone and wherein Compound I of formula (1) is the monomesylate salt form.**"

IX. A communication from the Board, dated 1 August 2019, was sent to the parties. In this, it was considered in particular that the main request lacked inventive step and that the auxiliary requests would be assessed with the same approach as the main request. It was in particular considered that the directly compressed tablet obtained in example 8 of C7 had not been tested, and that its disintegration time was not known. Moreover, it was stated that it was questionable whether the results of the tests C76 would allow a comparison with the tablet of C7.

X. Opponents 01, 04, 05, 08 and 09 informed the Board and the other parties that they would not attend the oral proceedings.

XI. With a letter dated 26 September 2019, the respondents commented on document C70 which related to experiments reproducing the directly compressed tablets of C7 and submitted a new item of evidence:
C76A: Supplemental Data

XII. With a letter dated 18 November 2019, the respondents submitted an additional new item of evidence:
C76B: Supplementary declaration of Vincent Rogue

XIII. Oral proceedings took place on 26 November 2019 in the presence of appellant 02 and the respondents.

XIV. The arguments of the appellants may be summarised as follows:

Admission of documents C76A and C76B into the proceedings

According to appellant 02, these documents could not be considered as a response to new objections raised by the Board because it had already questioned in its statement of grounds of appeal the relevance of document C76 as regards the process of preparation used therein and the fact that the experiments did not embrace the specific case when cross-linked PVP was the only excipient used for making tablets, a situation covered by the claimed subject-matter. These points were only answered late in documents C76A and C76B, and therefore these documents should not be admitted into the proceedings.

Main request - Inventive step - Arguments of appellant 02

The closest prior art was represented by Example 8 of C7. Thus, the differences between the subject-matter of claim 1 and C7 were:
i) the amount of compound I (imatinib),
ii) the amount of cross-linked PVP,
iii) the generalisation of Imatinib monomesylate to Imatinib
iv) the presence of cross-linked PVP as possible sole excipient.

The additional experimental results provided by C76 only used tablets manufactured according to example 2 of the contested patent; moreover, said experiments were post published and related to tablet properties which were not shown to be reached by the claimed tablets in the original application. Such post-published information could not be taken into account in the assessment of a technical effect, particularly since there was no mention or evidence in the original application that an effect as regards hardness, abrasion resistance, friability or disintegration time had been reached by the claimed tablets.

Moreover, the tablets of C76 had been manufactured exclusively by wet granulation followed by dry compression of the compound I, while in C7 a direct compression was used, and specific excipients were used in addition to cross-linked PVP. It was wrong to link the technical effects relied on by the respondents to any types of tablets claimed, namely to (a) any type of compound I, to (b) any type of tablet although the reported results relate to structured tablets comprising an inner phase comprising the monomesylate

salt of compound I, and an outer phase; and (c) the presence and amount of only cross-linked PVP.

The problem could only be the provision of an alternative tablet comprising a high amount of imatinib.

The solution was obvious in view of the conclusions of the first decision T 571/11 as regards the amount of compound I and of documents C78, C79, C81 and C84 which showed tablets with a high concentration of cross-linked PVP.

Main request - Inventive step - Arguments of appellant 09

According to appellant 09, the tablet of claim 1 of the main request differed from Example 8 of C7 in the amount of active ingredient (30-80%) and in the amount of crosslinked polyvinylpolypyrrolidone (10-35%). However, a further distinction would have to be seen in the fact that the composition of Example 8 of C7 comprised microcrystalline cellulose, which can act as a disintegrant.

A synergistic effect deriving from the distinguishing features was not described and not evident from any of the available data. Given the absence of any evident functional interdependency between the distinguishing features, the case at hand had to be considered to represent a combination of features to which the approach of partial problems was applicable. The first partial problem that was solved by the inclusion of the specified amount of active agent could only be seen as the provision of a tablet comprising a high drug load.

The second partial problem that was solved by the inclusion of the specified amount of cross-linked polyvinylpyrrolidinone could only be seen as the provision of a tablet that disintegrates within a certain amount of time. A third partial problem solved by the exclusion of microcrystalline cellulose could be seen as the provision of a tablet that employed a compound other than microcrystalline cellulose as a binder.

The claimed solution to the first problem was obvious to the skilled person in view of his own common knowledge and in view of the disclosure of C7. The inclusion of the specified amount of cross-linked polyvinylpyrrolidinone solved the problem of providing a tablet that disintegrates within a certain amount of time, and was obvious in view of C77 or C78. C7 provided a list of alternative binders which made the solution to the third partial problem also obvious.

Auxiliary requests - Inventive step

The arguments remained the same.

XV. The arguments of the respondents may be summarised as follows

Admission of documents C76A and C76B into the proceedings

C76A showed that tablets with the composition as claimed and prepared by different methods had the required properties, in particular the disintegration time.

C76B related to the preparation of a tablet comprising exclusively imatinib and cross-linked PVP and demonstrated that it was possible to prepare such tablets.

These documents were a direct response to issues raised by the Board for the first time and did not present complex issues. They should therefore be admitted into the proceedings.

Main request -Inventive step

Starting from example 8 of C7, the differences between the disclosed tablets and those claimed in the main request were as follows:
- The claimed tablets comprised compound I (imatinib) in an amount of 30-80% by weight; and
- The claimed tablets comprised cross-linked PVP in an amount of 10-35% by weight.

The technical effect of the two differences was that the tablets of the invention incorporated high loads of compound I whilst having a small size in terms of dimension and thickness and, despite the high amount of compound I present, the tablets had adequate abrasion resistance, hardness, low friability and disintegration times of 20 minutes or less. Furthermore, the tablets of the invention, when containing 100mg of compound I, were bioequivalent with the marketed hard gelatine capsules of compound I.

The respondents agreed with the Opposition Division's formulation of the objective technical problem to be solved as "the provision of imatinib tablets improving patient compliance, i.e. incorporating the entire daily dose of 400mg imatinib in a single tablet of acceptable

dimensions, or reducing the dimensions of a tablet comprising a 100mg dose, wherein the tablets have acceptable hardness and friability, and a disintegration time of 20 minutes or less".

C76 reported on a study of the physical characteristics and release profiles of variants of the 400 mg tablet of example 2 of the patent. The results confirmed that tablets across the scope of the claim had characteristics within the parameters specified in the patent, but that tablets falling below the disintegrant loading of the claim i.e. containing only the standard, recommended levels of cross-linked PVP disintegrant, did not meet the required characteristics.

Starting from the tablets disclosed in the closest prior art, there was nothing in any of the cited documents that would have led the skilled person to make the necessary changes to the tablets in C7 with an expectation of solving the above objective technical problem. In particular, the prior art failed to provide any teaching that would have led the skilled person to increase the amount of compound I in the tablets whilst simultaneously increasing the amount of cross-linked PVP to 10-35% in the expectation of obtaining a tablet that achieved all the necessary characteristics.

If the tablet formula contained a large percentage of active, the formulator was restricted in the choice of excipients. Tablet formulas with a higher percentage of active could contain only minimal quantities of excipients. These excipients had therefore to perform their functions at relatively low levels.

To analyse the invention according to the problem and solution approach the differences and their technical

effects had to be analysed in combination. The correct question to be answered was whether the skilled person would increase the percentage of compound I whilst at the same time also increasing the percentage of cross-linked PVP with the aim of incorporating a dose of 400 mg into a single tablet of acceptable dimensions or reducing the dimensions of a tablet comprising a 100 mg dose.

I the present case, the prior art taught away from using high levels of cross-linked PVP, as shown in C3, C6, C57, C77. All these documents taught that cross-linked PVP had to be used in low amounts.

In view of these teachings the skilled person would have had no incentive to modify the prior art tablets to arrive at tablets according to the claimed invention.

One other important point to consider relating to the question of whether or not the skilled person would have increased the amount of cross-linked PVP in the prior art tablets, was that the tablets of C7 already had attractive disintegration times of around 2 minutes and hardness and friability values falling within the parameter specifications set out in the patent, as shown in C70. In view of C70, the skilled person would not have increased the amount of cross-linked PVP.

Furthermore, it was evident that properties of formulations and the effect of excipients were dependent on the specific active ingredient in question. Therefore, a skilled person adapting the prior art would have been guided primarily by the teachings relating to compound I. The skilled person would not have consulted teachings about other,

unrelated active ingredients because they would have known that it was not possible to extrapolate findings concerning one active ingredient to the formulation of another unrelated active ingredient in a reliable manner with any expectation of achieving the same result with compound I.

Therefore, the claimed solution to the above technical problem was not obvious.

Auxiliary request 1

Auxiliary request 1 corresponded to the claims of the main request but wherein compound I was limited to a monomesylate salt, and was filed in response to the opponents' lack of inventive step arguments, specifically the allegation that the technical effect was not achieved over the whole scope of the claims, since the subject-matter was not restricted to a salt of compound I.

Auxiliary request 2

Auxiliary request 1 corresponded to the claims of the main request but wherein claim 1 has been amended to explicitly state that cross-linked PVP is present as the sole disintegrant. Auxiliary request 2 was filed in response to the opponents' added subject-matter and lack of clarity objections.

Auxiliary request 3

Claim 1 is a combination of the features of claim 1 of auxiliary requests 2 and 3.

XVI. Requests

Appellants 02 and 09 requested that the decision under appeal be set aside and the patent be revoked. The appellant 02 additionally requested that documents C76A and C76B not be admitted into the proceedings.

The respondents requested that the appeal be dismissed, alternatively that the decision under appeal be set aside and the patent be maintained on the basis of one of auxiliary requests 1-3 filed with letter of 11 July 2018. They also requested that documents C76A and C76B be admitted into the proceedings.

Reasons for the Decision

1. Admission of documents C76A and C76B

1.1 Under Article 13(1) RPBA, admission of changes to a party's submission after the filing of the statement of grounds of appeal and the reply thereto is at the Board's discretion and depends upon the circumstances of the case under consideration. The discretion shall be exercised in view of the complexity of the new submission, the current state of the proceedings and the need of procedural economy.

1.2 C76A and C76B were filed by the respondents after the Board had issued its communication and preliminary opinion, thus at a late stage of the appeal proceedings. C76A and C76B have has been filed respectively two months and one week before the oral proceedings.

1.2.1 C76A is a supplement to document C76 and shows the preparation of tablets as claimed, i.e. having a high

amount of compound I and of cross-linked PVP, by three different processes of preparation namely by wet granulation and compression, by an one-step wet granulation process and by a direct compression. C76A intends to show that tablets with the composition as claimed and prepared by different methods have satisfactory physical properties and disintegration times.

1.2.2 C76B shows the preparation of a tablet comprising solely the compound I and cross-linked PVP and again the physical properties and disintegration times of said obtained tablet. C76B shows that such a tablet obtained by direct compression has a satisfactory friability, an aspect with broken edges, and a disintegration time of about 5 minutes.

1.3 According to the respondents, these documents were filed in response to objections raised for the first time by the Board in its communication. C76A was filed since the Board had questioned whether the results of the tests C76 would allow an effective comparison with the tablet of C7. C76B was filed since the Board had questioned whether the experiments of C76 could be extrapolated to the whole scope of claim 1 which encompassed tablets made exclusively from compound I and cross-linked PVP, without any further excipient.

1.4 Appellant 02 however had raised these specific points already in its statement of grounds of appeal. Appellant 02 indeed questioned the experiments C76 as regards, inter alia, the fact that said experiments did not embrace the entire scope of the claims for any type of tablet and for the use of cross-linked PVP as the only excipients (see points 66-71 of the statement of

grounds of appeal of appellant 02, dated 26 February 2018).

1.5 Thus, the points mentioned by the Board in its communication were already explicitly presented by appellant 02 at the earliest stage of the appeal proceedings and do in no way constitute new objections or arguments. Accordingly, the submission of the experiments C76A and C76B cannot be considered as a reply to a recent objection or observation from the Board, there are no valid reasons for their late filing.

Moreover, it is questionable whether said experiments are of interest for the discussion on inventive step, since they do not present a direct comparison between the claimed tablet and the prior art tablet. Hence, even if a priori the experiments were to be considered as not being too complex, drawing a conclusion from them as regards the assessment of inventive step cannot be seen as clear and simple, and this might raise, at this stage, new issues which is against the need for procedural economy.

1.6 Accordingly, the experiments C76A and C76B are not admitted into the proceedings (Article 13(1) RPBA).

2. Main request - Inventive step

2.1 The claimed invention relates to tablets comprising compound I (imatinib) in high amounts. Said tablet needs to keep appropriate properties as regards abrasion resistance, hardness and friability and must disintegrate within 20 minutes or less (see par. [0041], [0044]-[0046] of the patent specification).

2.2 All parties agreed that the closest prior art is example 8 of C7.

2.2.1 Said example discloses directly compressed tablets of 100 mg of compound I, amounting to 19% by weight of the active moiety. The tablets also comprise 4.5% by weight of cross-linked PVP.

The tablet of example 8 does therefore not disclose an amount of compound I of 30-80% by weight and an amount of 10-35% by weight of cross-linked PVP, said amounts constituting the distinguishing technical features between the claimed subject-matter and the disclosure of C7.

2.3 The respondents argued that the two distinguishing features represent a combination of features that are functionally interdependent and interrelated in terms of the resulting physical properties of the tablet, and not a mere aggregation of functionally unrelated features. For this reason, a partial problem analysis is not appropriate for the claimed invention, since modifying both the quantity of compound I and the quantity of cross-linked PVP will have an effect on the properties of the tablet including disintegration times, hardness and friability.

The Board can however not follow this argument, since the application as filed is silent as regards this alleged interrelation or interdependence, which is also not implicitly derivable from the disclosure of the application as filed.

The purpose of the present invention is indeed the preparation of tablets comprising a high drug loading, i.e. from 30 to 80% by weight of compound I (see

application as filed, page 1, 4th par.). In the preparation of said tablets, the teaching of the original application is that one or more excipients may be present, namely at least one binder, at least one disintegrant, at least one glidant, at least one lubricant and/or a coating (see page 2, 5th par. and page 3 par. 1 to par. 4). The original description does neither mention any preference among the cited classes of excipients nor any interrelation between the amount of compound I and the choice of a specific excipient in a specific amount. There is also no particular emphasis as regards the amount of cross-linked PVP, originally comprised between 5 and 40% by weight (see page 3, last par.), in particular not in any of the examples; the original application mentions furthermore that a given excipient may serve more than one function (see page 4, 2nd par.).

Consequently, the alleged interrelation between the amount of compound I of 30-80% by weight and of cross-linked PVP of 10-35% by weight does not find any basis in the application as filed and is also not implicitly derivable therefrom. The effect of each distinguishing technical feature has therefore to be considered separately.

2.4 The respondents concur with the opposition division in the definition of the problem, namely the provision of imatinib tablets improving patients compliance, i.e incorporating the entire daily dosage of 400 mg imatinib in a single tablet of acceptable dimensions, or reducing the dimensions of a tablet comprising a 100 mg dose, wherein the tablets have acceptable properties, as regards hardness, and a disintegration time of 20 minutes or less.

Appellant 09 defines the problem as the provision of a tablet comprising a high drug load, that disintegrates within a certain amount of time and that employs a compound other than microcrystalline cellulose as a binder.

Appellant 02 sees the problem as the provision of an alternative tablet comprising a high amount of Compound I.

2.5 It has to be investigated whether there is sufficient evidence supporting the alleged effects. For this purpose, documents C76 and C70 were mentioned by the respondents and discussed during oral proceedings in support of the existence of an effect.

2.5.1 The use of document C76 was contested by appellant 02. According to appellant 02, this document related to experiments on desired tablet properties which were carried out after the filing date and which referred to effects not plausibly shown to be achieved by the claimed tablets in the original application. There was no mention or evidence in the original application that an effect as regards hardness, abrasion resistance, friability or disintegration time had been plausibly achieved by the claimed tablets.

2.5.2 The Board cannot share this view. This line of argumentation appears to be incompatible with the assessment of inventive step according to the problem-solution approach, which first requires the identification of the closest state of the art, and then the identification of a technical effect and the formulation of a problem compared to this state of the art, said problem being solved by the claimed subject-matter.

Said technical effect or problem must either be explicitly mentioned in the application as filed or at least be derivable therefrom, but not necessarily originally supported by experimental evidence. It can indeed not be expected from a patent applicant to include an extensive number of experimental evidences corresponding to all technical features which can possibly be claimed in the application as filed and which can possibly constitute a future distinguishing feature over the closest prior art, since said closest prior art and its technical disclosure may not be known to the applicant at the filing date of the application.

In the present case, the technical effects relating to abrasion resistance, hardness, friability and disintegration time are explicitly mentioned in the application as filed (see pages 8, 2nd par. to page 9 2nd par., or corresponding par. [0041] and [0044]-[0046] of the patent specification). Said technical effects can therefore be involved in the assessment of inventive step, and C76 has been filed with the intention to proof the mentioned properties reached by tablets obtained by wet granulation and comprising cross-linked PVP in the claimed amount over the tablets obtained by wet granulation and comprising cross-linked PVP in an amount lower than 10% by weight. Hence, disregarding the tests of C76 which intend to demonstrate an improvement in the tablet properties over the closest prior art would be incompatible with the problem-solution approach.

The point raised by appellant 02 appears rather to relate to the ground of lack of disclosure which is a different ground of opposition and is not the point to be discussed here.

2.5.3 C76 is an experiment comparing several tablets obtained by wet granulation and differing in the concentration of cross-linked PVP. The tablets were tested for disintegration time, hardness, friability and abrasion resistance. The results demonstrate that tablets comprising 10 to 35% by weight of cross-linked PVP show a disintegration time of less than 20 minutes and an appropriate abrasion and friability, while tablets also obtained by wet granulation comprising less than 10% by weight of cross-linked PVP have a disintegration time of more than 20 minutes. These results show convincingly that tablets with the composition as claimed obtained in particular by a wet granulation process have appropriate and indeed improved physical properties over tablets obtained by wet granulation but with a lower amount of cross-linked PVP.

However, said experiments C76 do not present a comparison with the tablets disclosed in example 8 of C7, since they relate to tablets obtained only through wet granulation while the tablets disclosed in C7 are prepared by direct compression. Accordingly, the experiment C76 cannot constitute evidence supporting the alleged effects.

2.5.4 C70 is an experiment which repeats the preparation of tablets according to example 8 of C7, with the same ingredients, amounts and the same direct compression method. The prepared tablets show a disintegration time of less than two minutes and a good friability, with in particular no broken tablets. The disclosure of the experiments C70 show therefore undeniably that the tablets of the closest prior art have physical properties and disintegration which were similar to those expected from the claimed tablets.

Hence, in view of C70, the claimed tablets do not present any improvement linked with the amount of cross-linked PVP as to their properties, i.e regards hardness and the disintegration time of 20 minutes or less.

2.6 Since it is not possible to establish the existence of an improvement over the prior art as regards the amount of cross-linked PVP, the technical problem must be formulated as proposed by appellant 02, namely the provision of an alternative tablet comprising a high amount of compound I.

2.7 The solution is a tablet comprising an amount of 30-80% by weight of compound I and an amount of 10-35% by weight of cross-linked PVP.

2.8 The question remaining is whether the skilled person, starting from example 8 of C7, would arrive at the subject-matter of claim 1 of the main request in an obvious manner in order to solve the problem posed.

2.8.1 As regards the claimed high amount of Compound I, the previous decision T 571/11 concluded that no reason would give rise to an expectation of failure, or to a prejudice, which would discourage and prevent the skilled person, seeking to solve the technical problem, from carrying out the obvious solution of preparing tablets having a high drug load of imatinib active moiety, as defined in claim 1. Thus the board concluded in T 571/11 that the skilled person would indeed prepare such tablets in order to solve the technical problem (see point 1.16 of the decision). This conclusion is still valid for the present case.

2.8.2 As regards the claimed amount of 10 to 35% by weight of cross-linked PVP, several documents teach explicitly that the usual amount of cross-linked PVP to be used in tablets does not exceed 10% by weight and is usually around 1-5%by weight as shown by the following documents:
- C3: "low levels (2-4%)".
- C6: "lower use levels" and typical amounts used of "0.5-5%".
- C57: "2-5% concentration in tablets".
- C77: "rarely, if ever, necessary to use more than five per cent in a tablet".

2.8.3 Other documents, namely C81, C84 and C78, mention however the use of cross-linked PVP in higher amounts, in particular in the context of directly compressed tablets or when using cross-linked PVP as an excipient that serves more than one function.

C81 studies the properties of tablets comprising cross-linked PVP as regards its compressibility, binding and disintegrating properties in comparison with starch and cellulose. The tablets are prepared by direct compression and cross-linked PVP is used in amounts of inter alia 10 and 20% by weight of the tablet. The tablets obtained with cross-linked PVP showed a good compressibility, good binding properties and fast disintegration times.

C84 studies the properties of tablets as regard friability and disintegration when obtained with cross-linked PVP as disintegrating agent at various concentrations such as 15% by weight (see Table I), and inter alia through direct compression. The study compared cross-linked PVP with alginic acid or starch and concluded that cross-linked PVP could act as binder

and disintegrating agent at low concentration (2-5%) and showed a quick disintegration time when used at a concentration of 20% by weight.

C78 studies the binding and disintegrating properties of cross-linked PVP used in tablets in amounts inter alia of 14% by weight (see Tab. 4) or 10% by weight (see Tables 2, 8, 13 and 14). The results show in Tables 6-8 that tablets prepared with high amount of cross-linked PVP have an acceptable hardness and a quicker disintegration time.

2.8.4 Consequently, the teaching which stands out from all these documents is that there is indeed a usual concentration of use of cross-linked PVP, but that a use at higher concentrations is also known, in particular in the case of tablets obtained by direct compression or for use as an excipient with multiple functions, i.e as binding and disintegrating agent.

The skilled person is therefore not bound to the usual amounts of use of cross-linked PVP and would not see any technical prejudice in using a higher amount of cross-linked PVP such as amounts comprised between 10 and 35% by weight, even though it was shown in C70 that tablets with a lower amount of cross-linked PVP had already acceptable properties. The choice of a higher amount of cross-linked PVP is in particular known and desirable when cross-linked PVP is intended to be used as a excipient acting simultaneously as binding and disintegrating agent.

Accordingly, the claimed solution as regards the amount of 10-35% by weight of cross-linked PVP is obvious.

2.9 Consequently, the subject-matter of claim 1 is not inventive and the main request does not meet the requirements of Article 56 EPC.

3. Auxiliary request 1 - Inventive step

Claim 1 of auxiliary request 1 has been restricted to "the monomesylate salt form" of the Compound I of formula (1) which is also the salt disclosed in example 8 of C7. This amendment does therefore not have any impact on the reasoning and conclusion as regards inventive step.

Consequently, auxiliary request 1 does not meet the requirements of Article 56 EPC.

4. Auxiliary request 2 - Inventive step

Claim 1 of auxiliary request 2 is a reformulation of claim 1 of the main request with the same technical features. The conclusion as to inventive step reached for the main request apply therefore mutatis mutandis to auxiliary request 2.

Consequently, auxiliary request 2 does not meet the requirements of Article 56 EPC.

5. Auxiliary request 3 -Inventive step

Claim 1 of auxiliary request 3 corresponds to claim 1 of auxiliary request 2 with the further restriction to the "the monomesylate salt form". As for auxiliary request 1, this amendment has no incidence on the assessment of inventive step.

Consequently, auxiliary request 3 does not meet the requirements of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: On behalf of the Chairman
(according to the Art. 8(3) RPBA):

B. Atienza Vivancos P. Schmitz

Decision electronically authenticated