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**Datasheet for the decision
of 2 December 2014**

Case Number: T 2130/11 - 3.3.07

Application Number: 04254247.2

Publication Number: 1502569

IPC: A61K6/00, A61K6/08

Language of the proceedings: EN

Title of invention:

Methods of providing two-part self-adhering dental compositions

Patent Proprietor:

Kerr Corporation

Opponents:

3M Innovative Properties Company
3M Deutschland GmbH

Relevant legal provisions:

EPC Art. 84, 108, 111(1), 123(2), 123(3)
EPC R. 99(2)
RPBA Art. 13

Keyword:

Admissibility of appeal - appeal sufficiently substantiated (yes)
Claims - clarity of disclaimer (no)
Amendments - disclosed disclaimer
Amendments - extension beyond the content of the application as filed (yes)
Late-filed auxiliary requests - admitted (yes)
Amendments - extension beyond the content of the application as filed (no)
Appeal decision - remittal to the department of first instance (yes)

Decisions cited:

G 0002/88, G 0001/03, G 0002/10

Catchword:

The difficulty for the applicant or patent proprietor in formulating an allowable disclaimer cannot justify an exception in the application of Article 84 EPC which is not foreseen in the Convention. Not even a condition on the allowability of a disclaimer made explicit in a decision of the Enlarged Board as the condition that a "disclaimer should not remove more than is necessary to restore novelty" (G 1/03, point 3 in the reasons, second paragraph, last sentence) may have as a consequence the watering down of one of the requirements of the EPC. The requirements of Article 84 EPC must therefore apply for a disclaimer as for any other feature of a patent claim (see point 2.9).

On the other side, the condition that the disclaimer should not remove more than is necessary to restore novelty should be applied while taking into consideration its purpose, namely that the "necessity for a disclaimer is not an opportunity for the applicant to reshape his claims arbitrarily" (G 1/03, point 3 in the reasons, second paragraph, last but one sentence). In this respect situations can be foreseen, in which, while fulfilment of the condition taken in a strictly literal way would not be possible, a definition of the disclaimed subject-matter which satisfies the requirements of Article 84 EPC and fulfils the purpose of the condition (i.e. to avoid an arbitrary reshaping of the claims) may be achievable. In other words, a disclaimer removing more than strictly necessary to restore novelty would not be in contradiction with the spirit of G 1/03, if it were required to satisfy Article 84 EPC and it did not lead to an arbitrary reshaping of the claims (see point 2.10).



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Case Number: T 2130/11 - 3.3.07

**D E C I S I O N
of Technical Board of Appeal 3.3.07
of 2 December 2014**

Appellant:
(Patent Proprietor)

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Respondents:
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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 26 July 2011
revoking European patent No. 1502569 pursuant to
Article 101(3) (b) EPC.**

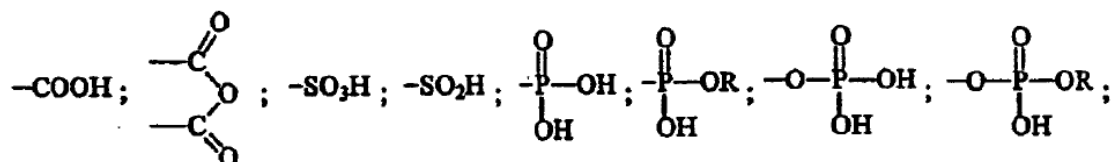
Composition of the Board:

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

Summary of Facts and Submissions

I. The appeal of the patent proprietor (appellant) lies against the decision of the opposition division announced at the oral proceedings on 16 June 2011 to revoke European patent 1 502 569. The patent was granted on the basis of 32 claims, claim 1 reading as follows:

"1. A method for providing a dental composition comprising providing a paste/paste two-part self-adhering dental composition comprising
(a) at least one acidic compound containing at least one acidic moiety selected from the group consisting of



where R is an alkyl or aryl group;

(b) at least one polymerizable monomer without any acidic group where the polymerizable group is selected from the group consisting of an acrylate, a methacrylate and a vinyl group;

(c) at least one finely divided filler;

(d) at least one reducing agent: and

(e) at least one oxidizing agent:

wherein the ratio of the first paste containing (a) to a second paste not containing (a) or containing a lower concentration of (a) is greater than 1:1 (by volume), with the proviso that the composition does not comprise (a), (b), (c), (d) a substituted thiourea selected from the group consisting of 1-(2-pyridyl)-2-thiourea and 1-(2-tetrahydrofurfuryl)-2-thiourea, and (e) a hydroperoxide compound with at least one hydroperoxide group attached to a tertiary carbon."

II. A notice of opposition was filed in which revocation of the patent in its entirety was requested on the grounds of lack of novelty and of inventive step, of insufficiency of disclosure and of extension of the subject-matter beyond the content of the application as filed (Article 100(a), (b) and (c) EPC).

The opposition was based *inter alia* on the following documents:

D1: EP-A-1 479 364

D3: WO-A-03/086328

III. The decision was based on a set of claims filed as main request with letter dated 17 May 2011 and on three further sets of claims filed as first to third auxiliary requests during oral proceedings on 16 June 2011.

Claim 1 of the main request corresponded to claim 1 as granted with the addition of a process step ("wherein (d) at least one reducing agent and (e) at least one oxidizing agent form a self-cure initiator system in which when (d) at least one reducing agent and (e) at least one oxidizing agent come into contact with each other a redox reaction takes place and initiates polymerisation, leading to curing or hardening of the composition"), of a limitation on the ratio of the first paste to the second paste ("from 1.05:1 (by volume) to about 20:1 (by volume)") and of a second disclaimer worded as follows:

"and with the further proviso that, with reference to Tables 1, 2, and 3 of WO 03/086328, the composition does not comprise,
a first paste (Paste A1) consisting of;

6.9 wt % Water, 24.2 wt % HEMA, 0.076 wt % BHT, 38.1 wt % AA:ITA:IEM, 3.5 wt % BisGMA, 2.5 wt % KPS, 24.2 wt % Zr-Si Filler, and 0.5 wt % Aerosil R812S, and a second paste (Paste B1) consisting of; 13 wt % Water, 8.7 wt % HEMA, 1.4 wt % ATU, 0.16 wt % TBDMA, 37.2 wt % FAS I, 37.2 wt % FAS II, 0.5 wt % TiO₂, and 1.2 wt % Aerosil R812S, or a first paste (Paste A2) consisting of; 6.8 wt % Water, 1.2 wt % KS, 23.9 wt % HEMA, 0.075 wt % BHT, 37.6 wt % AA:ITA:IEM, 3.4 wt % BisGMA, 2.1 wt % KPS, 23.9 wt % Zr-Si Filler, and 1.0 wt % Aerosil R812S, and a second paste (Paste B1) consisting of; 13 wt % Water, 8.7 wt % HEMA, 1.4 wt % ATU, 0.16 wt % TBDMA, 37.2 wt % FAS I, 37.2 wt % FAS II, 0.5 wt % TiO₂, and 1.2 wt % Aerosil R812S, or a first paste (Paste A3) consisting of; 11.5 wt % Water, 18.9 wt % HEMA, 0.079 wt % BHT, 42 wt % AA:ITA:IEM, 3.6 wt % BisGMA, 2.4 wt % KPS, 21 wt % Zr-Si Filler, and 0.5 wt % Aerosil R812S, and a second paste (Paste B2) consisting of; 11.4 wt % Water, 10.3 wt % HEMA, 1.4 wt % ATU, 0.16 wt % TBDMA, 37.6 wt % FAS I, 37.6 wt % FAS II, 0.5 wt % TiO₂, and 1.1 wt % Aerosil R812S, or a first paste (Paste A4) consisting of; 11.5 wt % Water, 1.1 wt % KS, 18.7 wt % HEMA, 0.078 wt % BHT, 41.5 wt % AA:ITA:IEM, 3.6 wt % BisGMA, 2.4 wt % KPS, 20.8 wt % Zr-Si Filler, and 0.5 wt % Aerosil R812S, and a second paste (Paste B2) consisting of; 11.4 wt % Water, 10.3 wt % HEMA, 1.4 wt % ATU, 0.16 wt % TBDMA, 37.6 wt % FAS I, 37.6 wt % FAS II, 0.5 wt % TiO₂, and 1.1 wt % Aerosil R812S, or a first paste (Paste A5) consisting of; 11.2 wt % Water, 2.6 wt % KDHP, 0.8 wt % KS, 18.3 wt % HEMA, 0.076 wt % BHT, 40.6 wt % AA:ITA:IEM, 3.5 wt %

BisGMA, 2.3 wt % KPS, 20.3 wt % Zr-Si Filler, and 0.5 wt % Aerosil R812S,
and a second paste (Paste B2) consisting of;
11.4 wt % Water, 10.3 wt % HEMA, 1.4 wt % ATU, 0.16 wt % TBDMA, 37.6 wt % FAS I, 37.6 wt % FAS II, 0.5 wt % TiO₂, and 1.1 wt % Aerosil R812S,
the Water being deionised water,
HEMA being 2-Hydroxyethyl methacrylate containing 150 ppm 4-methoxyphenol as an inhibitor,
BHT being 2,6-Di-*tert*-butyl-4-methylphenol,
AA:ITA:IEM being a polymer made by reacting AA:ITA copolymer with sufficient 2-isocyanatoethyl methacrylate to convert 16 mole percent of the acid groups of the copolymer to pendent methacrylate groups, according to the dry polymer preparation of Example 11 of U.S. Pat. No. 5,130,347, AA:ITA being a copolymer made from a 4:1 mole ratio of acrylic acid:itaconic acid, prepared according to Example 3 of U.S. Pat. No. 5,130,347,
BisGMA being 2,2-Bis[4-(2-hydroxy-3-methacryloyloxypropoxy)phenyl]propane,
KPS being potassium persulphate,
Zr-Si Filler being a silane-treated zirconia-silica (Zr-Si) filler prepared as described in U.S. Pat. No. 4,503,169,
Aerosil R812S being a fumed silica,
KS being potassium sulphate,
KDHP being potassium dihydrogen phosphate,
ATU being Allylthiourea,
TBDMA being 4-*tert*-Butyl dimethylaniline,
FAS I being a fluoroaluminiumsilicate [*sic*] glass powder having a surface area of 2.8 m² /g that has been silane-treated with a liquid treatment solution, the treatment solution being prepared by combining 4 parts A174 g-methacryloxypropyl trimethoxysilane and 60 parts water, adding glacial acetic acid to a pH of 3.01, and

stirring for 0.5 hours, in which the treatment solution is mixed with 100 parts of the glass powder and an additional 67 parts of water to provide a slurry, the pH of the slurry is adjusted to 7.0 by adding 5% ammonium hydroxide and stirred for 30 minutes, dried for 24 hours at 95°C, crushed, and sifted through a 74-micrometer sieve, and

FAS II being a fluoroaluminiumsilicate glass powder having a surface area of 84 m² /g that has been silane-treated with a liquid treatment solution, the treatment solution being prepared by combining 8 parts A174 g-methacryloxypropyl trimethoxysilane and 60 parts water, adding glacial acetic acid to a pH of 3.01, and stirring for 0.5 hours, in which the treatment solution is mixed with 100 parts of the glass powder and an additional 67 parts of water to provide a slurry, the pH of the slurry is adjusted to 7.0 by adding 5% ammonium hydroxide and stirred for 30 minutes, dried for 24 hours at 95°C, crushed, and sifted through a 74-micrometer sieve".

Claim 1 of the first auxiliary request included among other amendments a rewording of the second disclaimer in which the references to some patent documents and the definitions of some of the components of the disclaimed compositions by reference to their method of production were deleted. In claim 1 of the second and third auxiliary requests both disclaimers were deleted and the reducing agent and the oxidising agent were defined as being selected from specific lists.

IV. The decision under appeal can be summarised as follows:

- a) Claim 1 of the main request did not meet the requirements of Article 123(2) EPC in view of the disclaimer over document D1, as it excluded more

than necessary to restore novelty over D1 and did not have a basis in the original application in view of the combination of individual members from two lists of compounds. The other amendments complied with the requirements of Article 123(2) EPC. This was the case, in particular, for the addition of a process step related to a self-cure initiator system, as the missing wording from the corresponding passage of the description concerned two features, namely a mixing of the two pastes and the generation of free radicals, which were implicit for the skilled person. In addition claim 1 did not meet the requirements of Article 84 EPC in view of the disclaimer over document D3, which was neither clear, nor concise.

- b) The amendments of claim 1 of the first auxiliary request were not a fair attempt to overcome the objection relating to Article 84 EPC, so that the requirements of Rule 80 EPC were not met.
- c) Claim 1 of the second auxiliary request, which did not contain any of the two disclaimers, was allowable under Article 123(2) EPC, but did not meet the requirements of Article 123(3) EPC, as embodiments excluded in the granted claims by virtue of the disclaimer were now covered by the claim in view of the open wording "comprising".
- d) The same objection under Article 123(3) EPC applied to claim 1 of the third auxiliary request, as the wording "dental composition comprising" did not exclude further ingredients to be present.

V. The appellant lodged an appeal against that decision. With the statement setting out the grounds of appeal

dated 2 December 2011, the appellant filed 18 sets of claims as main request and first to seventeenth auxiliary requests. An amended version of the fourteenth and the seventeenth auxiliary requests was filed with letter of 18 February 2014.

Claim 1 of the main request corresponded to claim 1 of the main request on which the decision was based.

Claim 1 according to the first and second auxiliary requests corresponded to claim 1 of the main request, with the reformulation of first disclaimer as "with the proviso that the composition does not comprise (a), (b), (c), (d) a substituted thiourea, and (e) a hydroperoxide compound with at least one hydroperoxide group attached to a tertiary carbon" and "with the proviso that the composition does not comprise a hydroperoxide compound with at least one hydroperoxide group attached to a tertiary carbon" respectively.

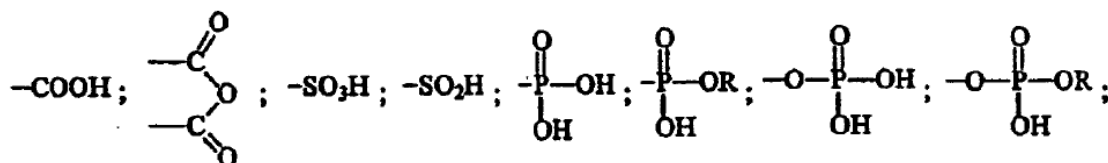
In claim 1 of the third auxiliary request both disclaimers were deleted with respect to claim 1 of the main request and replaced by a single one which read "with the proviso that the composition does not comprise a substituted thiourea". Claim 14 of the third auxiliary request was identical to granted claim 14 and read as follows:

"14. The method of any preceding claim wherein the reducing agent is selected from the group consisting of aromatic sulfinic acid salt, aliphatic sulfinic acid salt, thiourea, ascorbic [sic] acid, ascorbic acid derivative and salt, Fe(II) salt, Cu(I) salt, Co(II) salt, barbituric acid, barbituric acid derivative and salt, thiobarbituric acid, thiobarbituric acid derivative and salt, and combinations thereof."

- VI. In the reply to the statement of grounds the opponents (respondents) raised *inter alia* several issues under Articles 84 and 123(2) and (3) EPC against the claims of the requests on file.
- VII. In a communication sent in preparation of oral proceedings the Board addressed the objections of the respondents and with regard to the feature related to the self-cure initiator system expressed the preliminary opinion that "the omission of the mixing step and of the generation of free radicals appear to result in an extension of subject-matter with respect to the application as filed" (point 4.1 in the communication).
- VIII. With letter of 31 October 2014 the appellant filed a further set of claims as eighteenth auxiliary request, whose claim 1 differed from claim 1 of the main request in that the feature related to the self-cure initiator system had been reworded as "wherein (d) at least one reducing agent and (e) at least one oxidizing agent form a self-cure initiator system in which, when **the two pastes are mixed**, (d) at least one reducing agent and (e) at least one oxidizing agent come into contact with each other **and** a redox reaction takes place **which generates free radicals** and initiates polymerisation of **monomers**, leading to curing or hardening of the composition" (amendments with respect to the main request are in bold) and anticipated the intention to introduce the same amendments in each of the requests on file.
- IX. Oral proceedings were held on 2 December 2014. During the oral proceedings, two objections under Article 84 EPC were raised for the first time by the respondents

during the discussion on the third auxiliary request, namely a lack of clarity related to the use of the word "about" in claim 1 and a contradiction related to the presence of thiobarbituric acid and its derivatives in claim 14. After deliberation on the main request and on the first to third auxiliary requests, the appellant filed an amended third auxiliary request, whose claims 1 and 14 read as follows (amendments with respect to the third auxiliary request are in bold, deletions in strike-through):

"1. A method for providing a dental composition comprising providing a paste/paste two-part self-adhering dental composition comprising (a) at least one acidic compound containing at least one acidic moiety selected from the group consisting of



where R is an alkyl or aryl group;

(b) at least one polymerizable monomer without any acidic group where the polymerizable group is selected from the group consisting of an acrylate, a methacrylate and a vinyl group;

(c) at least one finely divided filler;

(d) at least one reducing agent: and

(e) at least one oxidizing agent:

wherein (d) at least one reducing agent and (e) at least one oxidizing agent form a self-cure initiator system in which, when **the two pastes are mixed**, (d) at least one reducing agent and (e) at least one oxidizing agent come into contact with each other **and** a redox reaction takes place **which generates free radicals** and initiates polymerisation **of monomers**, leading to curing or hardening of the composition,

wherein the ratio of the first paste containing (a) to a second paste not containing (a) or containing a lower concentration of (a) ranges from 1.05:1 (by volume) to ~~about~~ 20:1 (by volume), with the proviso that the composition does not comprise a substituted thiourea."

"14. The method of any preceding claim wherein the reducing agent is selected from the group consisting of aromatic sulfinic acid salt, aliphatic sulfinic acid salt, thiourea, ascorbic [sic] acid, ascorbic acid derivative and salt, Fe(II) salt, Cu(I) salt, Co(II) salt, barbituric acid, barbituric acid derivative and salt, ~~thiobarbituric acid, thiobarbituric acid derivative and salt,~~ and combinations thereof."

- X. The arguments of the appellant, as far as relevant to the present decision, can be summarised as follows:

Main request, first and second auxiliary requests - clarity and conciseness

- a) A disclaimer over document D3 was legitimate, D3 being prior art under Article 54(3) EPC. The only way to fulfil the provision set out in G 1/03 (OJ EPO 2004, 413) that a disclaimer may not remove more subject-matter than required to restore novelty was to disclaim the five relevant examples of D3 by using the exact terms of such examples. If the subject-matter of such examples was sufficiently clear to be anticipatory, then also a disclaimer repeating it had to be clear. Conciseness was also not an issue, as concise does not mean short, but no longer than needed. It was not fair to make the allowability of a disclaimer dependent on the disclosure of the prior art. As

to the specific wording of the disclaimer, the references to patent documents were so precise that the skilled person was not required to search in the documents and product-by-process features were allowable as it was the case for a positive definition of a product.

Third auxiliary request - amendments and clarity

- b) The disclaimer excluded an embodiment specifically disclosed in the application as filed and was as such a disclosed disclaimer. A basis was present both for the whole class of reducing agents in generic terms and for the specific compounds which were excluded, so that the insertion of the disclaimer did not result in singling out a not disclosed group of compounds. The conditions in G 2/10 (OJ EPO 2012, 376) for allowing a disclosed disclaimer were therefore met. Whether there were problems of sufficiency for the remaining subject-matter, was not relevant for Article 123(2) EPC. As to the feature related to the self-cure initiator system, the words of the original disclosure which were not present in claim 1 were superfluous, as it was evident to the skilled person that the two pastes were necessarily mixed when applying the dental composition and only free radical polymerisation could take place. Any different polymerisation, such as ionic polymerisation, would be inappropriate for a dental composition in view of the necessary presence of unpleasant catalysts.

- c) There was no contradiction between claim 14 and claim 1; while some overlap may be present between the compounds listed in claim 14 and those

disclaimed in claim 1, the overlapping compounds were clearly excluded by the disclaimer. The use of the word "about" in claim 1 did not make the wording of the claim unclear.

Amended third auxiliary request - admittance, clarity and amendments

- d) The claims of the amended third auxiliary request addressed the two clarity issues raised for the first time at the oral proceedings before the Board and the objection under Article 123(2) EPC which had been raised in the communication of the Board. As to the latter objection, this point had been decided in favour of the appellant in first instance proceedings and the introduced amendment had already been proposed in the eighteenth auxiliary request with the indication that it applied to all requests on file. On that basis the request was a legitimate reaction to a new situation and should be admitted.

- e) It was clear from the wording of the feature related to the self-cure initiator system that the cured or hardened composition was the composition resulting from mixing the two pastes. The lack of the word "mixed" did not therefore make the claim unclear, nor did it result in extension of subject-matter beyond the content of the application as filed. As to the other objections, the same reasons applied as detailed for the third auxiliary request.

Remittal

- f) A remittal to the first instance was appropriate for consideration of novelty and inventive step.

XI. The arguments of the respondents, as far as relevant to the present decision, can be summarised as follows:

Admissibility of the appeal

- a) Admissibility of the appeal was contested in view of the filing of a huge number of requests without clearly pointing out why any of these requests fulfilled the requirements of the EPC while requesting that the case be remitted to the first instance for consideration of novelty and inventive step. This behaviour was considered as a misuse of appeal proceedings and not complying with the Rules of Procedure of the Boards of Appeal.

Main request, first and second auxiliary requests - clarity and conciseness

- b) The second disclaimer referred to several patent documents and extended over 67 lines. As summarised by the opposition division, this put an unreasonable burden on the public to find out what was protected and was not, therefore resulting in lack of clarity and of conciseness. The condition that a disclaimer may not remove more than required to restore novelty was not relevant when it came to the analysis of clarity and conciseness and the use of the exact wording of the prior art could not make the claim clear by definition.

Third auxiliary request - amendments and clarity

- c) While a basis was available in the application as filed for the positive feature that the reducing agent was a substituted thiourea, there was no basis for the corresponding negative feature and what remained after the exclusion was a subgroup which was not directly and unambiguously derivable from the application as filed. The condition in G 2/10 (*supra*) on the subject-matter remaining after the introduction of the disclaimer was therefore not met. Moreover, the disclaimer excluded the preferred embodiment and the skilled person had no indication that the invention could work for the remaining subject-matter. The feature related to the self-cure initiator system had no basis in the application as filed, as two elements of the disclosure in the original description, namely the mixing of the two pastes to bring the reducing agent and the oxidising agent into contact and the generation of free radicals by the redox reaction, were not included in the claim. The missing elements could not be considered as implicitly covered by the claim, as "mix" and "come into contact" had clearly different meanings and polymerisation reactions other than free radical polymerisation were possible. As a further point, the definition of a first paste containing (a) and a second paste not containing (a) or containing a lower concentration of (a) did not correspond to the wording in the original application which referred to a first paste containing the acidic compound(s) or higher concentration of acidic compound(s). For all these reasons, the requirements of Article 123(2) EPC were not met.

- d) There was a contradiction between the definition of the reducing agent in claim 14 which listed thiobarbituric acid, its derivatives and its salts and the disclaimer in claim 1 which excluded substituted thiourea, as thiobarbituric acid belongs to the excluded class. The use of the term "about" in claim 1 made the definition of the range of the volume ratio of the first paste to the second paste unclear.

Amended third auxiliary request - admittance, clarity and amendments

- e) The amended third auxiliary request had to be rejected as late filed. It was relevant in this respect that the appellant had filed only the eighteenth auxiliary request with the reply to the communication of the Board and no other request including the amendment of the self-cure initiator system. The reformulated feature relating to the self-cure initiator system was still not in compliance with Articles 84 and 123(2) EPC in view of the absence of the term "mixed" with reference to the cured or hardened composition. All other objections under Article 123(2) EPC raised for the third auxiliary request still applied.

Remittal

- f) A remittal to the first instance was not appropriate. In the present case there was a risk that claim 1 of the amended third auxiliary request was not novel and that further amended version of the claim did not comply with the requirements of Article 123(2) EPC, so that the

case could be in a few years again before the Board with no progression. In any case, if the Board decided to remit, reference should be made in the decision to the passages of G 2/10 (*supra*) relevant for the analysis of novelty and inventive step in the case of a disclosed disclaimer (paragraphs 4.5.5 and 4.6 of the grounds).

XII. The appellant requested that the decision under appeal be set aside and the patent be remitted to the opposition division on the basis of the main request or, in the alternative, on the basis of one of the first to third auxiliary requests, the amended third auxiliary request and the fourth to eighteenth auxiliary requests, the main request and the first to thirteenth, fifteenth and sixteenth auxiliary requests having been filed by letter of 2 December 2011, the fourteenth and seventeenth auxiliary requests having been filed by letter of 18 February 2014, the eighteenth auxiliary request having been filed by letter of 31 October 2014 and the amended third auxiliary request having been filed during the oral proceedings on 2 December 2014.

XIII. The respondents requested that the appeal be rejected as inadmissible, or alternatively be dismissed.

Reasons for the Decision

Admissibility of the appeal

1. The respondents did not contest that the formal requirements for filing an appeal were met. Instead, they contested the admissibility of the appeal in view of the filing of a huge number of requests without clearly pointing out why any of these requests

fulfilled the requirements of the EPC while requesting that the case be remitted to the first instance.

- 1.1 The Board cannot see how the issues raised by the respondents could be related to the admissibility of the appeal and is of the view that the reasons provided in the statement of grounds of appeal clearly meet the requirements of Article 108 and Rule 99(2) EPC.
- 1.2 With the statement setting out the grounds of appeal the appellant filed *inter alia* a main request and provided reasons why the grounds for revocation identified in the appealed decision under Articles 84 and 123 EPC did not hold. In this way the legal and factual reasons on which the case for setting aside the decision was based were given. This is sufficient to make the appeal substantiated.
- 1.3 In this respect the facts that in the statement of grounds of appeal points not dealt with in the decision were not addressed and that many other requests were filed are fully irrelevant.
- 1.4 On that basis the Board concludes that the appeal is admissible.

Main request - clarity and conciseness

2. Claim 1 of the main request includes a disclaimer meant to exclude five examples of document D3. Such disclaimer makes reference to 3 tables of D3, lists the specific compositions of the two pastes for each of the examples and defines the components of the pastes using the wording of D3, which includes for some of the components their method of production and references to

other patent documents giving further information over such methods (point III, above).

- 2.1 Decision G 1/03 (*supra*) analyses in detail the allowability of disclaimers and with regard to their drafting and the requirements of Article 84 EPC states the following (point 3 in the reasons, third paragraph):

"In any case, the requirements of conciseness and clarity of Article 84 EPC are also applicable to claims containing disclaimers. On the one hand, this means that a disclaimer is not allowable if the necessary limitation can be expressed in simpler terms in positive, originally disclosed features in accordance with Rule 29(1), 1st sentence, EPC. In addition, a plurality of disclaimers may lead to a claim drafting which puts an unreasonable burden on the public to find out what is protected and what is not protected. As in respect of other problems of clarity, a balance has to be struck between the interest of the applicant in obtaining adequate protection and the interest of the public in determining the scope of protection with reasonable effort. If a claim containing one or more disclaimers does not meet the latter interest it cannot be allowed. On the other hand, the understanding of a claim may be considerably complicated if the terminology of the application-in-suit and of the anticipation differ and different, incompatible terms are used in the claim. Here, Article 84 EPC may require that the terminology be adapted in order to exclude what is necessary to restore novelty."

- 2.2 This passage makes it clear, if at all needed, that disclaimers cannot be considered as an exception to the

requirements of Article 84 EPC, which must be fulfilled as in the case of any other feature of a claim.

- 2.3 Article 84 EPC defines the requirements of the wording of the claims, whose main purpose is to enable the protection conferred by the patent or patent application to be determined (G 2/88, OJ EPO 1990, 93, point 2.5 in the reasons).
- 2.4 The numerous references in the disclaimer to patent documents including D3 and further documents cited in its examples already on their own make it impossible for the skilled person to determine what falls and what does not fall under the claim without undue burden, therefore violating the requirements of Article 84 EPC.
- 2.5 On top of that, the references to the method of production for several of the ingredients of the composition make the wording of the disclaimer neither clear nor concise in the absence of any information on what the process features would imply on the corresponding product. While product-by-process features are under some circumstances allowable, this is more the exception than the rule and these features must in any case fulfil the requirements of Article 84 EPC as defined above (Case Law of the Boards of Appeal of the EPO, 7th edition 2013, II.A.7). In the present case, the definition of several of the components by means of detailed methods of production without any information on the effect of those features on the product renders it cumbersome, if not impossible, for the skilled person to determine whether a product falls or does not fall under the exclusion defined by the disclaimer.

- 2.6 Summing up, the cumbersome wording of the disclaimer is in itself neither clear, nor concise in view of the references to several patent documents and several methods of production. There can be no doubt that a positive feature defined in such a way would be neither clear, nor concise and there are no reasons which can justify a different approach when the same subject-matter is excluded. The fact that such a wording is used in some examples of a prior art document is in itself not a sufficient reason to make the wording clear. These examples are indeed the reason why the appellant is forced to introduce the disclaimer, but this necessity does not release him from the obligation that the claims must be clear and concise as provided by Article 84 EPC.
- 2.7 On that basis, claim 1 of the main request does not meet the requirements of Article 84 EPC in view of the introduced disclaimer and the main request is to be rejected.
- 2.8 The appellant argued that such a conclusion would be unfair, as the condition in G 1/03 (*supra*) that a "disclaimer should not remove more than is necessary to restore novelty" (G 1/03, *supra*, point 3 in the reasons, second paragraph, last sentence) would render the allowability of a disclaimer dependent on the disclosure of the prior art, if this condition and the requirements of Article 84 EPC are strictly applied.
- 2.9 The Board considers that the difficulty for the applicant or patent proprietor in formulating an allowable disclaimer cannot justify an exception in the application of Article 84 EPC which is not foreseen in the Convention. Not even a condition on the allowability of a disclaimer made explicit in a

decision of the Enlarged Board as the condition that a "disclaimer should not remove more than is necessary to restore novelty" may have as a consequence the watering down of one of the requirements of the EPC. As already stated above (see point 2.2), there can be therefore no doubt that the requirements of Article 84 EPC must apply for a disclaimer as for any other feature of a patent claim.

- 2.10 On the other side, the Board is of the opinion that the condition that the disclaimer should not remove more than is necessary to restore novelty should be applied while taking into consideration its purpose, namely that the "necessity for a disclaimer is not an opportunity for the applicant to reshape his claims arbitrarily" (G 1/03, *supra*, point 3 in the reasons, second paragraph, last but one sentence). In this respect situations can be foreseen, in which, while fulfilment of the condition taken in a strictly literal way would not be possible, a definition of the disclaimed subject-matter which satisfies the requirements of Article 84 EPC and fulfils the purpose of the condition (i.e. to avoid an arbitrary reshaping of the claims) may be achievable. In other words, a disclaimer removing more than strictly necessary to restore novelty would not be in contradiction with the spirit of G 1/03, if it were required to satisfy Article 84 EPC and it did not lead to an arbitrary reshaping of the claims.

First and second auxiliary requests - clarity and conciseness

3. Claim 1 of the first and second auxiliary request include the second disclaimer with unchanged wording. In view of that these requests do not meet the

requirements of Article 84 EPC for the same reasons as detailed for the main request (point 2, above).

Third auxiliary request - amendments

4. In claim 1 of the third auxiliary request the two disclaimers of claim 1 of the main request were deleted and replaced by a single disclaimer reading "with the proviso that the composition does not comprise a substituted thiourea". While the issue under Article 84 EPC on which the previous requests were rejected is no longer relevant, it needs to be examined whether the requirements of Article 123 EPC are met.

4.1 As to the newly formulated disclaimer, both parties agreed that the disclaimed component is disclosed in positive terms as a possible reducing agent in the application as filed. Indeed, the first sentences of the paragraph bridging pages 11 and 12 of the application as filed read (emphasis by the Board):

"For component (d), any reducing agent can be used. The reducing agents include, but are not limited to, aromatic sulfinic acid salt, aliphatic sulfinic acid salt, thiourea, **substituted thiourea**, Fe(II) salt, Cu(I) salt, Co(II) salt, ascorbic [sic] acid, ascorbic [sic] acid derivative and salt, barbituric acid, barbituric acid derivative and salt, thiobarbituric acid, and thiobarbituric acid derivative and salt. In one embodiment, the reducing agent is a **substituted thiourea**."

4.2 The exclusion of substituted thiourea from the composition amounts to the deletion of a disclosed embodiment from a generic class and results therefore

- in the limitation of the reducing agent to any possible reducing agent excluding substituted thiourea.
- 4.3 The remaining subject-matter is still generic and cannot be considered as a non-disclosed subgroup, which has been singled out by means of the disclaimer, so that the remaining general teaching cannot be seen as being modified by the disclaimer.
- 4.4 This is exactly the situation in which according to G 2/10 (*supra*) the disclaimer is allowable, as under such circumstances the subject-matter remaining in the claim after introduction of a disclaimer disclaiming subject-matter disclosed in the application as filed is at least implicitly directly and unambiguously disclosed to the skilled person in the application as filed (see in particular point 4.5.4 of the reasons).
- 4.5 Whether the invention works for the claimed subject-matter and what problem is credibly solved by it are questions which are not relevant for assessing whether this subject-matter extends beyond the content of the application as filed.
- 4.6 On that basis the introduction of the disclaimer in claim 1 of the third auxiliary request is in accordance with the requirements of Article 123(2) EPC.
- 4.7 As to the feature related to the ratio of the two pastes being defined as "the ratio of the first paste containing (a) to a second paste not containing (a) or containing a lower concentration of (a)", it is indeed true that the the original description refers in several instances to "the volume ratio of the first paste containing the acidic compound(s) or a higher concentration of acidic compound(s) to the second

paste" (see e.g. the sentence bridging pages 5 and 6 of the original description). However, the Board cannot see any change of meaning by the replacement, as component (a) is actually defined in claim 1 as the acidic compound(s) referred to in the description, the condition on the first paste containing a higher concentration of the acidic compound(s) remains unchanged by the change in wording and the fact that the ratio is a volume ratio is explicitly present in claim 1 ("by volume" is specified when the end points of the range are defined). Also this amendment is therefore in accordance with the requirements of Article 123(2) EPC.

- 4.8 As to the feature relating to the self-cure initiator system, which reads "wherein (d) at least one reducing agent and (e) at least one oxidizing agent form a self-cure initiator system in which when (d) at least one reducing agent and (e) at least one oxidizing agent come into contact with each other a redox reaction takes place and initiates polymerisation, leading to curing or hardening of the composition", the only passage of the description which is indicated as a possible basis (page 12, last paragraph) reads instead:

"The reducing agent(s) and oxidizing agent(s) form a self-cure initiator system to cure or harden the mixed composition. That is, when the two pastes are mixed, the reducing agent(s) and the oxidizing agent(s) come into contact with each other and a redox reaction takes place. The redox reaction generates free radicals and initiates polymerization of monomers, leading to curing or hardening of the mixed composition."

- 4.9 It is immediately apparent that two features of the cited passage have been omitted from the claim, namely

that the coming into contact of the reducing agent(s) and the oxidizing agent(s) takes place when "the two pastes are mixed" and that the redox reaction "generates free radicals", which according to the appellant are superfluous, as both of them would be implicit features for the skilled person reading the claim.

- 4.10 The Board does not concur with the arguments of the appellant, as it does not see how the two features could be considered as implicit.
- 4.11 Even accepting that mixing of the two pastes must take place at a certain stage of the application of the dental composition, the current wording does not imply that the coming into contact of the reducing agent and the oxidising agent takes place while mixing, all the more as it is not defined which of the two pastes contains the agents, so that it cannot be excluded that they are included in the same paste.
- 4.12 As to the kind of polymerisation which takes place, no evidence has been provided that in a system as the present one free radical polymerisation necessarily occurs and other polymerisation mechanisms are excluded. In the absence of evidence, the argument that the skilled person would consider any other polymerisation inappropriate for a dental composition remains an unproven allegation. Moreover, the absence of a specification that the redox reaction generates free radicals has a bearing on the breadth of the claim, as also reacting compounds of the redox system are included which do not generate free radicals.
- 4.13 On that basis, claim 1 of the third auxiliary request does not meet the requirements of Article 123(2) EPC in

view of the feature relating to the self-cure initiator system.

- 4.14 As the third auxiliary request is not allowable under Article 123(2) EPC, there is no need to decide on compliance with Article 84 EPC.

Amended third auxiliary request - admittance

5. The claims of the amended third auxiliary request correspond to those of the third auxiliary request, which was filed with the statement of grounds, with three amendments, namely the rewording in claim 1 of the feature relating to the self-cure initiator system to put it in line with the wording in the original description, the deletion in claim 1 of the term "about" before the specification of the maximum value of the volume ratio between the first and the second paste and the deletion in claim 14 of thiobarbituric acid and its derivatives from the list of reducing agents (see point IX, above).
- 5.1 The first amendment can be seen as a reaction to an objection under Article 123(2) EPC on a point which was decided in favour of the appellant in the decision under appeal (see point IV (a), above). The amendment was proposed by the appellant with letter of 31 October 2014 (see point VIII, above), in which it was specified that it was intended to make the same amendment in all the requests on file, after the Board gave a preliminary opinion contrary to the ruling of the opposition division (see point VII, above). The amendment is easily understandable, takes the exact wording of the description and clearly introduces the two features which were objected to as missing with respect to the passage in the description.

- 5.2 The second and third amendments are a direct reaction to objections under Article 84 EPC, which were raised for the first time at the oral proceedings before the Board (see point IX, above). The fact that they clearly overcome the issues is confirmed by the fact that the clarity objections were no longer raised by the respondents with respect to the amended third auxiliary request.
- 5.3 All amendments can be seen therefore as legitimate reactions of the appellant. Moreover, they do not raise issues which the Board or the other party cannot reasonably be expected to deal with without adjourning the oral proceedings.
- 5.4 On this basis, the Board finds it appropriate to exercise its discretion under Article 13 of the Rules of Procedure of the Boards of Appeal, by admitting the amended third auxiliary request into the proceedings.

Amended third auxiliary request - clarity and amendments

6. In claim 1 of the amended third auxiliary request the only feature on which claim 1 of the third auxiliary request has been found not to meet the requirements of Article 123(2) EPC has been amended as follows (emphasis added by the Board):

"wherein (d) at least one reducing agent and (e) at least one oxidizing agent form a self-cure initiator system in which, when **the two pastes are mixed**, (d) at least one reducing agent and (e) at least one oxidizing agent come into contact with each other **and** a redox reaction takes place **which generates free radicals** and

- initiates polymerisation **of monomers**, leading to curing or hardening of the composition".
- 6.1 By means of this the two features which were found to be missing with respect to the basis in the application as filed, namely that the coming into contact of the reducing agent(s) and the oxidizing agent(s) takes place when the "two pastes are mixed" and that the redox reaction "generates free radicals" have been inserted into the claim, so that the objection is overcome.
- 6.2 As to the fact that the inserted wording does not specify that the composition which is cured or hardened is the "mixed" composition, as is the case in the passage of the description (see point 4.8, above), the Board is of the opinion that the absence of the missing term does not change the meaning of the claim. Indeed claim 1 concerns a "method for providing a dental composition comprising providing a paste/paste two-part self-adhering dental composition", i.e. a composition composed of two pastes. The disputed feature specifies that when the two pastes are mixed, a reaction takes place which leads to the curing or hardening of the composition, which can therefore be nothing else than the composition resulting from the the mixing of the two pastes, i.e. the mixed composition.
- 6.3 On that basis, the amended feature fulfils the requirement of Article 123(2) EPC and is clear.
- 6.4 As far as the other objections under Article 123(2) EPC are concerned, the same reasoning applies as detailed for the third auxiliary request (see points 4.1 to 4.7, above).

6.5 With regard to to Article 123(3) EPC, claim 1 of the amended third auxiliary request corresponds to granted claim 1 with the addition of two limiting features (the feature related to the self-cure initiator system and a limitation on the range of the volume ratio of the first paste to the second paste) and the replacement of the disclaimer "with the proviso that the composition does not comprise (a), (b), (c), (d) a substituted thiourea selected from the group consisting of 1-(2-pyridyl)-2-thiourea and 1-(2-tetrahydrofurfuryl)-2-thiourea, and (e) a hydroperoxide compound with at least one hydroperoxide group attached to a tertiary carbon" with the disclaimer "with the proviso that the composition does not comprise a substituted thiourea". This disclaimer excludes together with the specific composition excluded by the disclaimer in granted claim 1 all other compositions comprising substituted thiourea, so that the replacement clearly results in a limitation of the scope of protection (more compositions are excluded).

6.6 On that basis, the requirements of Articles 84 and 123(2) and (3) EPC are met.

Remittal

7. Although the EPC does not guarantee the parties an absolute right to have all the issues in the case considered by two instances, it is well recognised that any party may be given the opportunity of two readings of the important elements of a case. The essential function of an appeal is to consider whether the decision issued by the first-instance department is correct. Hence, a case is normally referred back if essential questions regarding the patentability of the

claimed subject-matter have not yet been examined and decided by the department of first instance.

7.1 In particular, remittal is considered by the boards in cases where a first-instance department issues a decision against a party solely upon a particular issue which is decisive for the case, and leaves other essential issues outstanding. If, following appeal proceedings, the appeal on the particular issue is allowed, the case is normally remitted to the first-instance department for consideration of the undecided issue (Article 111(1) EPC).

7.2 The observations made above apply in full to the present case. The opposition division decided that the claimed subject-matter did not meet the requirements of Articles 84 and 123 EPC, but did not consider further issues, including novelty and inventive step. These issues, however, formed, *inter alia*, the basis for the request that the patent be revoked in its entirety and must therefore be considered as an essential substantive issue in the present case.

7.3 None of the specific reasons invoked by the respondents is considered by the Board strong enough to justify a deviation from these principles. In particular, the uncertainty in the outcome of the continuation of the proceedings by the first instance is a fact common to any remittal case and cannot have any bearing on the decision of the Board. Moreover, the Board does not find it appropriate to give more indications to the first instance than those directly derivable from the points decided upon in the present decision.

8. Thus, in view of the above considerations, the Board has reached the conclusion that, in the circumstances

of the present case, it is appropriate to remit the case to the opposition division for the analysis of the further grounds of opposition on the basis of the claims of the amended third auxiliary request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:



S. Fabiani

J. Riolo

Decision electronically authenticated