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**Datasheet for the decision
of 10 November 2023**

Case Number: T 2833/19 - 3.2.03

Application Number: 05707326.4

Publication Number: 1713985

IPC: E04B1/82, E04B1/86

Language of the proceedings: EN

Title of invention:
SOUND ABSORBING STRUCTURES

Patent Proprietor:
ROCKWOOL A/S

Opponent:
Armstrong World Industries, Inc.

Relevant legal provisions:
RPBA Art. 12(2), 12(4)
RPBA 2020 Art. 13(2)
EPC Art. 56

Keyword:

Statement of grounds of appeal - party's complete case
Late-filed request - submitted with the statement of grounds
of appeal - admitted (yes) - request could have been filed in
first instance proceedings (no)
Late-filed auxiliary requests
Amendment after summons - new argument
Inventive step - main request (no) - auxiliary request (yes) -
non-obvious solution

Decisions cited:

T 0355/97, T 2514/16, T 1473/19



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Case Number: T 2833/19 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 10 November 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
7 August 2019 concerning maintenance of the
European Patent No. 1713985 in amended form.**

Composition of the Board:

Chairman C. Herberhold
Members: R. Baltanás y Jorge
D. Prietzel-Funk
B. Miller
N. Obrovski

Summary of Facts and Submissions

- I. European patent No. 1 713 985 B1 relates to "*sound absorbing structures*".
- II. An opposition was filed against the patent under Article 100(a) EPC in conjunction with Articles 54 EPC and 56 EPC.
- III. This appeal is against the opposition division's interlocutory decision, which found that the European patent met the requirements of the EPC in view of the amendments made in the then second auxiliary request filed with the submission of 14 January 2019.
- IV. Both the opponent and the patent proprietor appealed against this decision. Since both parties are therefore simultaneously appellant and respondent, they will be referred to hereinafter as the opponent and patent proprietor, respectively, for the sake of simplicity.
- V. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal 2020 (RPBA 2020), the Board indicated its preliminary opinion and requested the patent proprietor to clarify the procedural situation regarding the second auxiliary request. In response to this communication, the patent proprietor confirmed with an electronic submission dated 13 October 2023 that the second auxiliary request filed with its statement setting out the grounds of appeal corresponded to the second auxiliary request as found allowable by the opposition division.
- VI. With a submission dated 6 November 2023 the patent proprietor withdrew its main request and replaced it

with its first auxiliary request. The former second to tenth auxiliary requests were renumbered as the first, second, fourth, fifth, third, sixth, seventh, eighth and ninth request, respectively (see the table in the patent proprietor's submission dated 6 November 2023).

VII. Requests

At the end of the oral proceedings, the patent proprietor requested that the decision under appeal be set aside and that the patent be maintained as amended according to the main request or one of the first, third, second or fourth to ninth auxiliary requests (in that order) submitted with the letter dated 6 November 2023.

The opponent requested that the decision under appeal be set aside and the patent be revoked. It also requested that the main request and the third and sixth auxiliary requests submitted with the letter dated 6 November 2023 not be admitted into the appeal proceedings.

VIII. Claim 1 of the main request, including the itemisation of its features as adopted by the Board, reads as follows:

- A** *A sound-absorbing structure selected from ceilings and walls and comprising*
- B** *a plurality of substantially abutted, sound-absorbing elements,*
- C** *filler which is cast and cured between the elements whereby the filler and the elements provide the structure with a substantially flat surface*

- D** and a physically or chemically cured, monolithic rendering bonded to and extending substantially entirely over the substantially flat surface and which is smooth,
- E** characterized in that the sound-absorbing elements have an acoustic absorption coefficient α_w of at least 0.7,
- F** and the structure has an acoustic absorption coefficient α_w of at least 0.6,
- G** the rendering being porous, wherein the pores of the monolithic rendering are open pores which interconnect between the front surface of the rendering and the surface of the elements on which the rendering is applied,
- H** and wherein the monolithic rendering has a surface roughness such that Sa is below 140 μ m, Sq is below 170 μ m and Sz is below 900 μ m.

No objections were raised against independent method claim 14 and it is not relevant to this decision.

- IX. Claim 1 of the first auxiliary request is based on claim 1 of the main request, but features E and F have been replaced with the following features (amendments marked in bold):

- E'** characterized in that the sound-absorbing elements have an acoustic absorption coefficient α_w of at least **0.85** ~~0.7~~,
- F'** and the structure has an **lower** acoustic absorption coefficient α_w of at least **0.8** ~~0.6~~,

- X. Claim 1 of the third auxiliary request is based on claim 1 of the first auxiliary request, but feature H

has been replaced with the following feature
(amendments marked in bold):

H' and wherein the monolithic rendering has a surface roughness such that S_a is **below 40 to** $140\mu\text{m}$, S_q is **below 50 to** $170\mu\text{m}$ and S_z is **below 300 to** $900\mu\text{m}$.

XI. Priority

The opposition division decided that the priority of claim 1 was not valid and that the effective date of the claims was the filing date, i.e. 11 February 2005 (see point II.2 of the decision).

This was not contested. Thus, the Board takes this fact as common ground.

XII. Prior art

The following documents filed in a timely manner during the opposition period have been cited, both in the statements setting out the grounds of appeal and during the opposition proceedings, and are relevant to this decision:

- D1A: "BASWA®phon Installation Manual", Klaus Spindler Kunststofftechnik GmbH
- D1B: "BASWAphon Akustiksystem Produktdokumentation", BASWA acoustic AG
- D1C: "Prüfzeugnisse über Schallabsorptionsgrade zum Capatect-Akustik-System BASWA®", IAB Oberursel, 10 January 2002
- D3: "Declaration of Brian Springer", 4 April 2017

The following documents filed after the opposition period have been cited, both in the grounds of appeal

and during the opposition proceedings, and are relevant to this decision:

D9a: Printout of the website "BASWA product line" dated 13 December 2004 retrieved through the "Internet Archive Wayback Machine"

D9b: English translation of D9a

D10: Declaration of Mr Oleske dated 28 February 2019

XIII. The opponent's arguments can be summarised as follows.

(a) Main request - Admittance

The filing of the main request at issue could not be deemed a reaction to an unexpected course of the opposition proceedings since the opposition division had based its considerations on documents which had been filed in a timely manner during the opposition period, and the division had not changed its opinion in view of the prior art filed after this period. The patent proprietor knew from the opposition division's preliminary opinion that a higher acoustic absorption coefficient was not inventive, but it still maintained this feature in its requests. Thus the main request could and should have been filed during opposition proceedings but the patent proprietor decided not to do so.

The patent proprietor's first line of defence in opposition was to provide a higher acoustic absorption coefficient, with the definition of a particular roughness as in feature H only coming in second place. Consequently the current main request represented a change of strategy on appeal, which should not be allowed since this was not a good reason justifying its

admittance and the parties were not at liberty to shift their case to the second instance as they pleased.

Furthermore, the main request should not be admitted under Article 12(4) of the Rules of Procedure of the Boards of Appeal 2007 (RPBA 2007) since it did not meet the requirements of Article 12(2) RPBA 2007. The patent proprietor's statement setting out the grounds of appeal did not provide any reasons as to why this request was filed for the first time only during the appeal proceedings.

(b) Main request - Inventive step

Even if it were accepted that D9b disclosed two different embodiments - one related to the coating "System P" and another related to the coating "BASWAphon-407/Top" - the subject-matter of claim 1 was still obvious when starting from the second embodiment ("embodiment BASWAphon-407/Top").

Features E (the sound-absorbing elements having an acoustic absorption coefficient α_w of at least 0.7) and F (the structure having an acoustic absorption coefficient α_w of at least 0.6) were obvious to the skilled person since materials having a high acoustic absorption coefficient were well known to the skilled person before the priority date, as even acknowledged in the patent specification itself (see paragraph [0043]).

Feature G ("the rendering being porous, wherein the pores of the monolithic rendering are open pores which interconnect between the front surface of the rendering and the surface of the elements on which the rendering is applied") was disclosed in D9b since this document

had to be read in the light of D1A, which provided details of the particular coatings used, namely BASWaphon-407 and BASWaphon-Top. D1A disclosed that "*when this emulsion dries [sic], it remains microporous and acoustically transparent, thus allowing sound to reach the absorbing substrate*" (page 4, left-hand column, end of the first paragraph). [Note from the Board: "page x" refers to the xth page of the document in the version available in the electronic file.] The only way to guarantee this effect was for the micropores to be interconnecting between the front surface of the rendering and the surface of the sound-absorbing elements on which the rendering was applied, as defined in feature G.

Furthermore, feature H did not define any lower limits for the roughness parameters: "*the monolithic rendering has a surface roughness such that S_a is below $140\mu\text{m}$, S_q is below $170\mu\text{m}$ and S_z is below $900\mu\text{m}$* ". Since paragraph [0014] of the patent specification explained that the roughness values should "*allow for some microscale roughness in the surface which is grater [sic] than in conventional plaster and plasterboard surfaces*", it had to be concluded that the defined ranges encompassed the low roughness values usually satisfied by a conventional plaster and plasterboard surface. This resulted *de facto* in the definition of two sub-ranges: a first one from zero to an intermediate value, including the usual roughness values of conventional plaster, and a second one from the intermediate value to the defined upper limits, allowing for the greater microscale roughness than in conventional plaster and plasterboard surfaces. The objective technical problem thus could not be limited to that of the second sub-range but had to be defined in a broader way, namely as

obtaining a finishing which resembled conventional plaster or plasterboard surfaces.

The skilled person reading D9b was explicitly instructed to smooth the material until it resembled conventional plaster (see page 12, point 1.0), and the installation of BASWaphon material implied that the coating was sanded as confirmed by D1A, which was the installation instructions to be followed when using the materials of the embodiment BASWaphon-407/Top of D9b. Smoothing by sanding was likewise used in the impugned patent in order to reach the desired roughness values. Thus, the skilled person following the indications of D9b would inevitably arrive at the ranges of feature H, which encompassed the typical roughness values of conventional plaster or plasterboard.

(c) First auxiliary request

The arguments above relating to a lack of inventive step of the main request applied likewise to the first auxiliary request since a slightly higher acoustic absorption coefficient (features E' and F') could not render the subject-matter inventive, for the same reasons as for the main request.

(d) Third auxiliary request - Admittance

The third auxiliary request (corresponding to the sixth auxiliary request in the opposition proceedings) diverged from the auxiliary requests which preceded it. Since the request was late-filed the Board should not admit it into the proceedings.

(e) Third auxiliary request - Inventive step

The burden of proof for the technical effect allegedly provided by the ranges defined in amended feature H' lay with the patent proprietor, as considered in decision T 0355/97. The patent proprietor had not provided any comparative data proving that the amended roughness ranges resulted in the alleged improvement. In the absence of any such evidence, the ranges had to be considered an arbitrary selection encompassing values that the skilled person would choose in a routine manner.

XIV. The patent proprietor's arguments can be summarised as follows.

(a) Main request - Admittance

There had been unforeseeable changes during the opposition proceedings which justified the main request only being filed in the appeal proceedings.

Documents D9a, D9b and D10 had been filed two weeks before the oral proceedings in opposition. These documents provided new technical information and calculations of the acoustic absorption coefficient.

All this was new with regard to the legal and factual framework on which the opposition division's summons had been based. As a consequence, the roughness values unexpectedly became very relevant to the outcome of the case during the oral proceedings before the opposition division.

Moreover, the amendment in the current main request with respect to the second auxiliary request held

allowable by the opposition division was only minor and did not change the focus of the technical discussion on appeal since feature H of claim 1 of the current main request had been considered and discussed in the decision.

The patent proprietor's statement of grounds explained how the current main request (which at that time was the first auxiliary request) overcame the objections raised against claim 1 of the then main request. This was all that was required by Article 12(2) RPBA 2007. Under Article 12(4) RPBA 2007 every request filed with the statement setting out the grounds of appeal and meeting the requirements of Article 12(2) RPBA 2007 was in the proceedings by default, and the Board needed strong reasons to exclude a request filed with that statement. There were no such reasons in the case in hand.

(b) Main request - Inventive step

The embodiment BASWaphon-407/Top of D9b (pages 12 et seq.) did not disclose the claimed acoustic absorption coefficients (features E and F). Moreover, the wording "acoustically transparent" in D1A (see page 4, left-hand column, end of first paragraph and page 5, items a007 and a008) was more of a marketing term and could not be construed in a literal manner. Firstly, it was a relative feature. Secondly, the statement did not imply the presence of open pores interconnecting between the front surface of the rendering and the surface of the elements on which the rendering was applied, as defined in feature G. The stated property of the material used in D9b could well be due to sound travelling through the solid portion of the coating material and not necessarily through the pores.

Claim 1 also differed from the embodiment BASWaphon-407/Top on account of the roughness parameters (feature H).

D9a/b thus did not disclose features E, F, G and H even in the light of D1A.

The objective technical problem related to these distinguishing features was "*the provision of sound absorbing structures having a monolithic, smooth surface similar to conventional plaster or plasterboard but which has sound absorbing properties as high as, or almost as high as, are obtainable using sound absorbing elements such as panels or tiles*" (see paragraph [0006] of the patent specification). Furthermore, the opponent's arguments related to splitting the ranges into two sub-ranges had been raised for the first time during the oral proceedings and thus were not to be accepted under Article 13(2) RPBA 2020. Moreover, there was no evidence that the roughness of conventional plaster would fall within the claimed ranges, and the references in D9a/b and D1A to achieving a finishing with the appearance of conventional plaster could well refer to properties not related to roughness, such as the colour.

(c) First auxiliary request

The skilled person would not have envisaged providing higher acoustic absorption coefficients as defined in amended features E' and F' since this was not a general aim of every sound-absorbing structure, e.g. when intended for "performance scenarios such as music or theater" or in classrooms.

(d) Third auxiliary request - Admittance

There was no divergence between the third auxiliary request and the patent proprietor's preceding requests dealt with thus far during the oral proceedings before the Board since amended claim 1 further limited the previously introduced ranges relating to roughness (feature H').

(e) Third auxiliary request - Inventive step

The opponent had not established any strong presumption that the ranges defined in feature H' were disclosed in the prior art. The lower limit of the ranges in feature H' excluded conventional plaster, as the opponent itself had argued during the discussion of the main request. Paragraph [0014] of the patent specification disclosed the relevant technical effect of improving "the aesthetic appearance of the surface if the filler has not provided a perfectly flat surface", and the opponent had not provided any evidence to the contrary. The burden of proof was now on the opponent to show that the disclosed technical effect was not achieved. The prior art did not give the skilled person any hint to modify the roughness as in feature H' in order to address this problem; when aiming at reproducing the appearance of conventional plaster, the skilled person would only arrive at roughness values below the ranges of feature H', as evidenced by D3.

Reasons for the Decision

1. Main request

1.1 Admittance - Article 12(4) RPBA 2007

1.1.1 The revised Rules of Procedure of the Boards of Appeal (RPBA 2020) entered into force on 1 January 2020. Subject to the transitional provisions (Article 25 RPBA 2020), the revised version also applies to appeals pending on the date of the entry into force.

In the case in hand, the statement of grounds of appeal was filed before 1 January 2020. Thus, Article 12(4) to (6) RPBA 2020 does not apply, and instead Article 12(4) RPBA 2007 applies to the grounds of appeal (Article 25(2) RPBA 2020).

The main request at issue corresponds to the first auxiliary request filed for the first time with the patent proprietor's statement setting out the grounds of appeal. Thus, Article 12(4) RPBA 2007 is the legal basis for considering the admittance of the current main request into the appeal proceedings.

1.1.2 Under Article 12(4) RPBA 2007 the Board has the power to hold inadmissible *inter alia* requests filed with the statement of grounds which could have been presented in the first-instance proceedings.

However, the Board is not persuaded that the main request could and should have been filed during the opposition proceedings.

Documents D9a, D9b and D10 were filed on 1 March 2019, i.e. less than two weeks before the oral proceedings

before the opposition division scheduled for 14 March 2019. This prior art had, for the first time, an uncontested publication date and disclosed a sound-absorbing structure closely related to that derived from the disputed prior use based on D1A to D1C and the sample analysed in D3. D10 in particular is relied on in the decision to determine the acoustic absorption coefficient (decision point 4.1.1). For this reason D9a/b in combination with D10 was very relevant prior art, as later confirmed by the opposition division, which decided that the then main and first auxiliary requests did not involve an inventive step with regard to D9a combined with the common general knowledge.

Thus the patent proprietor had been surprised, shortly before the oral proceedings before the opposition division, by the filing of prior art that required a certain reassessment of the case and was decisive for its outcome. Under these circumstances, it cannot be said that the current main request could and should have already been filed during the opposition proceedings, even if there is a certain overlap between the disclosure of D9a/b and the alleged prior use(s) based on D1A-D1C and D3, which had already been on file at that time.

In the appeal proceedings, the patent proprietor reacted to this late-filed evidence at the first possible opportunity, namely when filing its statement setting out the grounds of appeal.

- 1.1.3 Contrary to the opponent's argument, Article 12(2) RPBA 2007 does not require the patent proprietor to provide arguments explaining why the main request had not been filed during the opposition proceedings.

This article requires that the statement setting out the grounds of appeal "*set[s] out clearly and concisely the reasons why it is requested that the decision under appeal be reversed, amended or upheld, and should specify expressly all the facts, arguments and evidence relied on*".

The patent proprietor included such reasons under the heading "Inventive step, first auxiliary request" on page 4 of its statement of grounds, where it pointed out that the opposition division in the contested decision had considered feature H (roughness ranges) to involve an inventive step.

Thus, the filing of the main request also complied with Article 12(2) RPBA 2007.

- 1.1.4 Finally, the amendments in the main request do not alter the legal and factual framework of the case since the opposition division had provided complete reasoning about why the claimed subject-matter involved an inventive step in view of feature H on its own.

In particular, amended features E' and F' (acoustic absorption coefficients) of the second auxiliary request held allowable by the opposition division did not play any role in the opposition division's conclusion that the subject-matter of claim 1 of this request was inventive. These features were assessed separately from feature H as addressing a different partial problem. Consequently, omitting features E' and F' in the current main request merely reverted an amendment which the opposition division had not considered to contribute to inventive step.

1.1.5 In view of the above, there are no reasons to hold the main request inadmissible (Article 12(4) RPBA 2007).

1.2 Inventive step, Article 56 EPC - D9a/D9b in the light of D1A and combined with common general knowledge

1.2.1 Non-contested features of claim 1 disclosed in D9a/D9b

Pages 12 to 27 of D9a (translated into English on pages 12 to 25 of D9b) disclose the BASWAphon-407/Top embodiment comprising the following features:

- a sound-absorbing structure selected from ceilings and walls (feature A) (see points "2.1 Deckensystem" and "2.2 Wandsystem" on page 13)
- comprising a plurality of substantially abutted, sound-absorbing elements (feature B) (see "BASWAphon Trägerplatten" on page 21, point 2.0)
- filler which is cast and cured between the elements whereby the filler and the elements provide the structure with a substantially flat surface (feature C) (see filler "BASWAphon-Fill" in step 2 of point 2.0 on page 21)
- a physically or chemically cured, monolithic rendering ("Grundsicht" BASWAphon-407 and "Deckschicht" BASWAphon-Top; see point 3.0 starting on page 22 and point 4.0 starting on page 24) bonded to and extending substantially entirely over the substantially flat surface and which is smooth (feature D) (see page 12, point 1.0 and page 20, point 1.1.5)

This has not been disputed by the patent proprietor.

1.2.2 Disclosure of feature G (open pores)

The materials BASWAphon-407 and BASWAphon-Top are used in the embodiment BASWAphon-407/Top of D9a as the base layer and the top layer in combination with the BASWAphon support plates (see page 19, elements 2, 3 and 4 under the list "Contents").

D1A likewise discloses the use of materials BASWA®phon-407 and BASWA®phon-Top (see page 5, Item a007 and Item a008) as well as their properties. The patent proprietor does not dispute that these materials correspond to those disclosed in the embodiment BASWAphon-407/Top of D9a, which have a practically identical name.

Thus, D1A is proof of the properties of the same materials BASWAphon-407 and BASWAphon-Top used in the embodiment of D9a. Consequently, it is justified to consider D9a **in the light** of the information provided by D1A.

D1A discloses on page 4, left-hand column, end of first paragraph that "*BASWA®phon is actually not a gypsum based plaster, but rather a water based emulsion of marble particles. The key to its performance is the fact that when this emulsion dries [sic], it remains microporous and **acoustically transparent, thus allowing sound to reach the absorbing substrate***" (emphasis added). The penultimate paragraph on the right-hand column of page 12 discloses: "*Transitions- from plasterboard or cement to BASWA®phon- Even though the direct coating of concrete, plaster or plasterboard surfaces with BASWA®phon 407 and Top (without supporting mineral wool panels) results in **practically***

no acoustic effects, it may nevertheless be taken into consideration for visual reasons" (emphasis added).

The skilled person knows that total acoustic transparency - i.e. a complete absence of any sound transmission effect related to the presence of the coating - is not possible. Nevertheless, D1A teaches the person skilled in the art that the coating material allows the sound to travel in a substantially uninterrupted manner towards the elements on which the coating is applied.

Consequently, the embodiment BASWaphon-407/Top of D9a discloses using microporous materials that are "acoustically transparent" which allow sound to reach the BASWaphon support plates in a substantially uninterrupted manner (i.e. BASWaphon-407 and BASWaphon-Top).

The Board is not persuaded by the patent proprietor's argument that the "acoustically transparent" behaviour of the coating materials could be due to sound travelling through the solid material instead of through open pores. This is not realistic in view of the reflection of the sound which would be caused by the solid material of the coating (an emulsion of marble particles). The only convincing explanation for such "acoustically transparent" behaviour is that the micropores of the material interconnect between the front surface of the rendering and the surface of the elements on which the rendering is applied - as in feature G - thus allowing the sound to travel freely.

Consequently, feature G is disclosed in D9a when construed in the light of D1A.

1.2.3 Distinguishing features

It is common ground that D9a does not disclose the following features:

- E** *characterized in that the sound-absorbing elements have an acoustic absorption coefficient α_w of at least 0.7,*
- F** *and the structure has an acoustic absorption coefficient α_w of at least 0.6,*
- H** *and wherein the monolithic rendering has a surface roughness such that S_a is below $140\mu\text{m}$, S_q is below $170\mu\text{m}$ and S_z is below $900\mu\text{m}$*

The technical effect of features E and F is that sound is absorbed to a given extent.

The objective technical problem addressed by features E and F is achieving a particular sound absorption.

The patent proprietor argued that the objective technical problem jointly solved by the differentiating features was the one indicated in paragraph [0006] of the patent, namely "*providing sound absorbing structures having a monolithic, smooth surface similar to conventional plaster or plasterboard but which has sound absorbing properties as high as, or almost as high as, are obtainable using sound absorbing elements such as panels or tiles*". In particular, feature H provided a smooth surface similar to conventional plaster or plasterboard while improving the aesthetic appearance of the surface if the filler has not provided a perfectly flat surface, as explained in paragraph [0014] of the patent specification.

However, the particular effect disclosed in paragraph [0014] is not present within the whole roughness ranges claimed, as the passage discloses that this technical effect arises because "*these values allow for some microscale roughness in the surface which **is grater** [sic] than in conventional plaster and plasterboard surfaces*". Ranges which start from zero - as in claim 1 of the main request - cannot provide a microscale roughness **greater** than in conventional plaster since they encompass the minimum possible microscale roughness, corresponding to a value of zero for each defined range.

This conclusion derives from the absence of a lower limit in feature H of claim 1 and is thus directly related to the interpretation of claim 1. Overall, claim interpretation is a question of law which, as such, must ultimately be answered by the Board (T 1473/19, Reasons 3.17).

During the oral proceedings before the Board, the opponent referred to a *de facto* presence of two sub-ranges in feature H: the first concerning roughnesses of conventional plaster surfaces and the second concerning roughnesses greater than conventional plaster surfaces. The Board considers this explanation to be a refined illustration of what the opponent had already argued in its statement of grounds of appeal (see point 14.4). For this reason, and given that claim interpretation is a question of law, the patent proprietor's objection under Article 13(2) RPBA 2020 against the opponent's supplementary explanation cannot succeed.

As claim 1 of the main request encompasses ranges starting from zero, the objective technical problem

related to feature H has to be defined in a broader and less ambitious manner.

The technical effect of the ranges defined in feature H is to provide a surface which appears to be truly smooth and aesthetically comparable with a conventional plaster or plasterboard surface (see first sentence of paragraph [0014]). The objective technical problem is thus to achieve the appearance of conventional plaster.

Even though paragraph [0006] of the patent groups different technical effects into a single sentence, the Board fails to see - taking account of the respective technical effects and the corresponding objective technical problems - any technical interaction or synergy between the distinguishing features E, F and H. Thus, the inventiveness of the distinguishing features E and F must be analysed separately from that of feature H.

1.2.4 Obviousness of features E and F

Feature E specifies that the sound-absorbing elements have an acoustic absorption coefficient α_w of at least 0.7.

Feature F specifies that the structure has an acoustic absorption coefficient α_w of at least 0.6.

The skilled person starting from the embodiment BASWaphon-407/Top of D9a is perfectly aware that a particular sound absorption can be achieved when using well-known sound-absorbing elements having a corresponding acoustic absorption coefficient α_w (see also paragraph [0043] of the patent). In this context, it would be obvious for the skilled person to use well-

known materials for the sound-absorbing elements having an acoustic absorption coefficient α_w of at least 0.7 when the particular use so requires, thus arriving at feature E. It is pointed out that D9a does not indicate any particular use for the disclosed sound-absorbing arrangements, which are consequently to be construed as arrangements for **general** sound isolation purposes, i.e. with no restrictions related to the sound absorption to be achieved when using them.

Since the rendering made of BASWaphon-407 and BASWaphon-Top is said to be "acoustically transparent" (see point 1.2.2 above), the resulting structure would have an acoustic absorption coefficient α_w which would not differ substantially from that of the sound-absorbing elements. Thus, the routine choice of sound-absorbing elements having acoustic absorption coefficients α_w of at least 0.7 would automatically result in a structure having an acoustic absorption coefficient α_w of at least 0.6, as defined in feature F.

Therefore, the skilled person starting from the embodiment BASWaphon-407/Top of D9a would arrive at features E and F in an obvious manner simply by using their common general knowledge.

1.2.5 Obviousness of feature H

Feature H defines parameters related to the roughness of the rendering without a lower limit: "*the monolithic rendering has a surface roughness such that Sa is below 140 μ m, Sq is below 170 μ m and Sz is below 900 μ m*".

D9a explicitly instructed the reader to smooth the rendering material used in the embodiment

BASWaphon-407/Top until it resembled conventional plaster (see page 12, first paragraph of point 1.0). The indication of the appearance of conventional plaster is thus related to smoothness and cannot refer to any other parameter such as the colour, as argued by the patent proprietor.

Consequently, the skilled person implementing the sound-absorbing structure of the embodiment BASWaphon-407/Top would achieve a roughness of the monolithic rendering falling within the parameters of feature H simply by following the instructions in D9b, applying their own common general knowledge about smoothing and comparing the result with a known reference (i.e. the conventional plaster).

1.2.6 Conclusion

In view of the foregoing, the subject-matter of claim 1 of the main request does not involve an inventive step when starting from D9a/D9b considered in the light of D1A and combined with the skilled person's common general knowledge (Article 56 EPC).

2. First auxiliary request - Inventive step, Article 56 EPC

The amendments in claim 1 relate to higher absorption coefficients being defined in features E' and F':

E' *characterized in that the sound-absorbing elements have an acoustic absorption coefficient α_w of at least **0.85** ~~0.7~~,*

F' *and the structure has an **lower** acoustic absorption coefficient α_w of at least **0.8** ~~0.6~~,*

As was explained in point 1.2.4 above, before the priority date the skilled person was well aware of sound-absorbing elements having high acoustic absorption coefficients α_w . They would therefore routinely contemplate using sound-absorbing elements having acoustic absorption coefficients α_w of 0.85 and above when implementing the embodiment BASWaphon-407/Top of D9a when the situation so requires. This would result, as explained above, in a sound-absorbing structure having an acoustic absorption coefficient α_w substantially similar to that of the sound-absorbing elements in view of the "acoustic transparency" of the monolithic rendering used in the embodiment BASWaphon-407/Top.

Consequently, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step for the same reasons as for the main request *mutatis mutandis* (Article 56 EPC).

3. Third auxiliary request

3.1 Admittance - Article 12(4) RPBA 2007

The third auxiliary request (dealt with before the second auxiliary request in the appeal proceedings, as per the patent proprietor's preference) was filed as the sixth auxiliary request with the patent proprietor's statement of grounds of appeal. Thus it is by default part of the appeal proceedings unless the Board sees valid reasons to hold it inadmissible (Article 12(4) RPBA 2007).

The only reason argued by the opponent in this regard was that the request allegedly was not convergent with the preceding ones.

This argument does not take account of the fact that the alleged lack of convergence does not exist now that the requests have been reordered. Claim 1 of the third auxiliary request is based on claim 1 of the first auxiliary request, further converging the subject-matter with an additional limitation of the roughness ranges, which now include a lower limit (feature H').

Consequently, there are no reasons to hold the third auxiliary request inadmissible.

3.2 Inventive step, Article 56 EPC

3.2.1 Burden of proof - Technical effect of feature H'

Paragraph [0012] of the patent specification discloses roughness ranges comprising a lower and an upper limit as in the distinguishing feature H' ("wherein the monolithic rendering has a surface roughness such that Sa is 40 to 140µm, Sq is 50 to 170µm and Sz is 300 to 900µm").

Paragraph [0014] of the patent specification (second sentence) discloses that "these values allow for some *microscale roughness in the surface which is grater [sic] than in conventional plaster and plasterboard surfaces and this helps to improve the aesthetic appearance of the surface if the filler has not provided a perfectly flat surface*". The skilled person understands that only a roughness range having a lower limit can provide a microscale roughness in the surface which is greater than in conventional plaster.

The Board sees no reason why the technical effect of the ranges defined in feature H' and paragraph [0012]

should be called into question since the technical information is credible for the person skilled in the art. Nor can the Board see any need for experimental data to prove technical information which is understandable on its own and which the skilled person considers credible in view of their common general knowledge.

This is substantially different from the situation in case T 355/97, in which the Board considered, largely from a technical point of view, whether the invention achieved the alleged technical effect (see Reasons 2.5.2), including the consideration of tests provided by the opponent (see Reasons 2.5.3), and concluded that there were serious technical reasons which cast doubt on the alleged technical effect being achieved (see Reasons 2.5.4).

Since the Board considers the technical effect associated with the range in feature H' to be credible, the burden of proof rests on the opponent to prove the opposite or at least provide evidence casting doubt on the alleged solution to the problem (see Case Law of the Boards of Appeal, 10th edition, III.G.5.1.1, eighth paragraph and also I.D.4.3.1, in particular T 2514/16, Reasons 3.3.7).

3.3 Feature H'

In conclusion, feature H' achieves the technical effect of providing a microscale roughness which is greater than in conventional plaster and plasterboard surfaces while still being aesthetically comparable with a conventional plaster or plasterboard surface (see paragraph [0014] of the patent specification).

Thus, the objective technical problem is to improve the aesthetic appearance of the surface if the filler has not provided a perfectly flat surface.

None of the prior art documents takes this technical problem into consideration or proves that the skilled person would fall within the defined ranges when starting from the embodiment BASWaphon-407/Top of D9a. For this reason alone, the subject-matter of claim 1 of the third auxiliary request involves an inventive step (Article 56 EPC).

For the sake of completeness, the Board notes that the only document disclosing roughness parameters actually points in the opposite direction. Document D3 discloses roughness parameters below and outside the defined ranges (see table on page 7, point 9), thus confirming that if the skilled person were looking to achieve a finishing for a monolithic rendering that has the appearance of conventional plaster (see D1A, point 1 of page 9; this document is allegedly related to the sample analysed in D3), they would be led to ranges outside those defined in H'.

4. Adapted description

The patent proprietor submitted an adapted version of the description, against which neither the opponent nor the Board had any objection.

5. Conclusion - Article 101(3) (a) EPC

Taking into consideration the amendments made by the patent proprietor of the European patent in the third auxiliary request, the patent proprietor's appeal is successful in so far as the patent and the invention to

which the third auxiliary request relates meet the requirements of the EPC. The patent can be maintained as amended, provided that the conditions laid down in the Implementing Regulations are fulfilled (Article 101(3)(a) EPC).

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 as amended in the following version:

Description:

Paragraphs 1 to 10, 13, 17 to 42, 44 to 55 of the patent specification; paragraphs 11, 12, 14, 15, 16 and 43 filed during the oral proceedings before the Board

Claims:

1 to 11 of the third auxiliary request submitted with the letter dated 6 November 2023

The Registrar:

The Chairman:



S. Lichtenvort

C. Herberhold

Decision electronically authenticated