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Datasheet for the decision of 6 July 2023

Case Number: T 1452/19 - 3.2.03

Application Number: 10710407.7

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IPC: E04B1/86

Language of the proceedings: EN

Title of invention:
LAMINATED ACOUSTIC SOUNDPROOFING PANEL

Patent Proprietor:
BPB Limited

Opponent:
Etex Building Performance International SAS

Relevant legal provisions:
RPBA 2020 Art. 13(1), 13(2)
EPC Art. 56

Keyword:
Amendment after summons - exceptional circumstances (no) - exercise of discretion - taken into account (no)
Inventive step - (yes) - problem and solution approach - reformulation of the technical problem - objective technical problem of "alternative" - inventive (yes)

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Case Number: T 1452/19 - 3.2.03

D E C I S I O N
of Technical Board of Appeal 3.2.03
of 6 July 2023

Appellant: (Patent Proprietor)	BPB Limited Saint-Gobain House Binley Business Park Coventry, West Midlands CV3 2TT (GB)
Representative:	Murgitroyd & Company Murgitroyd House 165-169 Scotland Street Glasgow G5 8PL (GB)
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Representative:	Etex Services NV - Etex IPSC Kuiermansstraat 1 1880 Kapelle-op-den-Bos (BE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 11 March 2019 concerning maintenance of the European Patent No. 2406437 in amended form.**

Composition of the Board:

Chairman	C. Herberhold
Members:	R. Baltanás y Jorge
	F. Bostedt

Summary of Facts and Submissions

I. European patent No. 2 406 437 B1 relates to a laminated acoustic soundproofing panel.

II. An opposition was filed against the patent based on Articles 100(b) EPC and 100(a) EPC in conjunction with Articles 54 EPC and 56 EPC.

III. This appeal is against the interlocutory decision of the opposition division, which found that auxiliary request 1 filed during oral proceedings fulfilled the requirements of the EPC. The opposition division found as well that the subject-matter of granted claim 1 did not involve an inventive step.

IV. This decision was appealed by the opponent and the patent proprietor. Since both parties are therefore simultaneously the appellant and the respondent, they are referred to in the following as the opponent and the patent proprietor.

V. In a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA 2020), the Board indicated its preliminary opinion. In response to this communication, the opponent filed a submission dated 12 May 2023 including estimates of several parameters relating to the main request and a new document (referred to as D20 in the following).

Oral proceedings were held on 6 July 2023.

VI. Requests

The patent proprietor requested that the decision under appeal be set aside and the patent be maintained as granted or, subsidiarily, that the patent be maintained on the basis of auxiliary request 1 filed during the oral proceedings before the opposition division or on the basis of one of the auxiliary requests 2 to 17 filed with the reply to the statement setting out the grounds of appeal of the opponent, or on the basis of auxiliary request 18 or 19 filed by letter of 4 July 2023. In addition, the patent proprietor requested that the submission of the opponent of 12 May 2023 not be taken into account and that document D19, submitted by the opponent with its reply to the grounds of appeal of the patent proprietor, not be admitted into the proceedings.

The opponent requested that the decision under appeal be set aside and that the patent be revoked. Furthermore, it requested that auxiliary requests 2 to 19 not be admitted into the proceedings.

VII. Claim 1 as granted (main request), including the numbering of its features as adopted by the Board, reads as follows:

a) *A laminated acoustic building panel comprising*
b) *a first substrate layer (10),*
c) *a second substrate layer (13)*
d) *bonded to the first layer by an adhesive layer (16),*
e) *the panel having a damping loss factor of 5 - 30% (η = 0.05 - 0.3),*
f) *wherein the ratio of the adhesive to the applied surface area of the substrate is 80 - 250 g/m^2;*

g) *characterised in that the panel has a dynamic Young's modulus of 0.1 to 5 GPa*

h) *and in that the adhesive has a dynamic Young's modulus (at 20°C) of 0.1 to 50 MPa at 100 Hz and/ or 0.5 MPa to 100 MPa at 1000 Hz*

i) *and a loss factor of at least 50% ($\eta > 0.5$).*

VIII. The auxiliary requests are not relevant to this decision.

IX. Prior art

The following documents cited in the statement setting out the grounds of appeal and during the opposition proceedings are relevant to this decision:

D1: GB 2 151 547 A

D2: GB 2 447 578 A

The opponent filed the following document for the first time with its statement setting out the grounds of appeal:

D17: "17: Adhesive Bonding", page 153. Allegedly belonging to the publication "Handbook of Plastics Joining: A Practical Guide Edited by Michael J. Troughton", 17 October 2008, Michael J. Troughton

The opponent filed the following document for the first time with its reply to the statement setting out the grounds of appeal of the patent proprietor:

D19: Jean Pujolle, "LA PRATIQUE DE L'ISOLATION ACOUSTIQUE DES BATIMENTS", Editions du Moniteur, 1978, 183-4

Finally, the opponent filed the following document with its submission dated 12 May 2023:

D20: Wilfried Kurz, Jean P. Mercier, Gérald Zambelli, "INTRODUCTION À LA SCIENCE DES MATÉRIAUX", PRESSES POLYTECHNIQUES ROMANDES, ©1987, 104

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

(a) Admittance of submission dated 12 May 2023

The issues presented by the opponent for the first time with its submission dated 12 May 2023 were not a refinement of the arguments originally presented but an entirely fresh case. The calculations and estimations raised for the first time had to be considered a complete reworking of the case which should not be admitted under Article 13(2) RPBA 2020.

Furthermore, these new arguments were *prima facie* not relevant. The calculations on which they were based were not supported scientifically since they used the static Young's modulus of common rubber for estimating the dynamic Young's modulus (DYM) of the adhesive of D1. Thus, neither the material nor the parameter considered was suitable for estimating the DYM of the adhesive of D1. The contested patent detailed how the DYM of the material was to be determined (see paragraphs [0019] and [0021]), namely by standardised experimentation, and a theoretical calculation of the

DYM as done in the late-filed submission was not possible.

(b) Main request - Inventive step

The subject-matter of claim 1 differed from D1 in features g) (panel's DYM of 0.1 to 5 GPa), h) (the adhesive has a DYM - at 20°C - of 0.1 to 50 MPa at 100 Hz and/or 0.5 MPa to 100 MPa at 1000 Hz) and i) (the adhesive has a loss factor of at least 50% - $\eta > 0.5$).

Contrary to what the opposition division had decided, the objective technical problem addressed by the distinguishing features was to provide a panel which could attenuate multiple dips in the sound frequencies to be dampened. This could be seen in Figure 2 of the contested patent, where curve A disclosed the prior art from which the invention had been developed. Curve A showed two dips in sound attenuation corresponding to different frequencies which, due to the distinguishing features - i.e. the characterising features of claim 1 - were attenuated in the invention (curves B and C).

Furthermore, even if the problem of providing an alternative panel which could achieve the sound attenuating performance of board A of D1 were considered, the skilled person would not arrive at the invention when starting from D1. This document focused on using semi-fluid tacky adhesives as an essential feature. This would discourage the skilled person from using other adhesives for the very specific function of D1. There was no incentive in D1 to implement any of the distinguishing features g), h) or i).

The adhesive of D1, even if it was acrylic based, was not the same as that of the invention, and no

conclusions could be drawn from the properties of the patent adhesive about the properties of the D1 adhesive. The family of acrylic adhesives was large (see e.g. D17), and properties varied within the family. The loss factor disclosed in D1 was that of the panel and not the adhesive. Thus, there was no correspondence between the loss factors.

Furthermore, the claimed ranges could not be considered obvious with respect to existing adhesives. Already because the opponent argued that it had to calculate an estimate of the DYM without the materials being disclosed in D1 which could then be tested, it had to be concluded that the adhesives of the invention did not fall within what the skilled person would consider disclosed or obvious when starting from D1.

The disclosure of D2 would not help the skilled person even if they were looking for an alternative adhesive. The adhesive of D2 was completely different to the tacky adhesive of D1. First, the D2 adhesive was not a tacky adhesive. Second, it consisted of another material (a foam) which was to be applied in larger amounts (between 1 and 30 mm of thickness vs the 0.2 mm of D1), thus multiplying the resulting weight. Finally, D2 merely disclosed the adhesive for adhering a board to a wall and not for adhering two substrate layers as defined in claim 1. There were thus multiple reasons not to combine the teaching of D2 with D1 since they were technically incompatible.

There was also no reason - that was not hindsight driven and taken out of context - for the skilled person to pick only the parameter relating to the DYM of the adhesive of D2 as a teaching to be combined with D1. Moreover, D2 merely disclosed an embodiment of an

adhesive where the DYM of the whole panel was affected by the properties of the adhesive (see page 5, lines 10 to 14). This would likewise discourage the skilled person from taking any teaching on the adhesive out of D2.

Finally, the defined range for the panel's DYM (feature g)) was not excessively broad as argued by the opponent. D2 disclosed a DYM of the panel of less than 1.5 MPa (page 2, lines 9 to 11), thus far away from the claimed range.

XI. The opponent's arguments on the main request can be summarised as follows.

(a) Admittance of submission dated 12 May 2023

The submission dated 12 May 2023 and the newly defined objective technical problem raised (how to implement board A of D1) were a refinement of the arguments provided with the reply to the statement setting out the grounds of appeal of the patent proprietor. The reformulation of the objective technical problem had been introduced in page 2 of the reply, whereas the absence of a technical effect and the choice of an arbitrary selection of broad ranges encompassing typical values had been argued on page 4 of the same document. The parameters illustrating these arguments were simply further elaborated on in the submission dated 12 May 2023 to show their obviousness.

The argument on feature g) (panel's DYM of 0.1 to 5 GPa) was related to the obviousness of this feature and not to its clear and unambiguous disclosure in D1 since it was based on considerations from other sources. Thus, it was not a new argument. The calculations on

feature g) were highly relevant for the case. Both D1 and the contested patent used conventional plaster boards and the same adhesive amounts (80 g/m^2). Both systems thus corresponded to each other, and the calculations proved that the resulting DYM of the D1 panel was plausibly within the defined range, which was indeed excessively broad.

The calculation of the DYM of the panel based on theoretical considerations was necessary because no exact materials were defined in claim 1 and no methods for such a determination had been proposed. Similar calculations were made on page 5 of D2 to determine the dynamic stiffness of the panel.

D20 was highly relevant since it related to rubber, which was an example of the very polymers used in D1 (see column 3, line 35 ff), which had to be fluid below room temperature. The fact that rubber was mixed with additives in D1 did not cast doubt on the validity of the parameter disclosed in D20 since the patent used acrylic adhesives as in D1 and did not exclude the presence of additives. The DYM of the D1 adhesive was thus to be determined by its main component, i.e. the rubber.

The corresponding value of the loss factor in board A of D1 and in the contested patent further hinted at a correspondence between the DYM of the adhesives. This was not a new argument but an indication enabling a meaningful comparison between D1 and claim 1. The fact that D1 showed a loss factor of the panel instead of the adhesive was not a difference compared to the patent since both panels used conventional plaster boards as sheets. Consequently, a difference in behaviour relating to the panel's loss factor could

only be due to a difference in the adhesive since the latter had the essential impact on the total loss factor, as shown in the examples of D1 where different adhesives were compared. As there was no such difference in the loss factor, the adhesives had to be comparable.

(b) Main request - Inventive step

Even if D1 did not clearly and unambiguously disclose features g), h) and i), the objective technical problem proposed by the patent proprietor was not realistic since the prior art of D1 did not show any dip in sound attenuation (board A of Figure 7).

The objective technical problem proposed by the Board in its communication under Article 15(1) RPBA 2020 (providing an alternative panel which could reach the performance of board A of D1) was still too far-reaching. The appropriate technical problem to consider was simply how to implement board A of D1.

If the problem stated by the Board were considered, the skilled person would turn to D2 when trying to provide an alternative panel since it belonged to the same technical field of composite panels for acoustic insulation (see page 4, line 22 to page 5, line 3). Contested claim 1 was not limited to plaster board sheets. Thus, even if D2 also used other materials for the sheets, the skilled person would still consider the adhesive shown in this document suitable for D1 since its effect would be the same. The skilled person was aware that adhesives such as the one disclosed in D2 were intended not only for adhering a board to a wall but also for adhering two boards to each other. In fact, this was explicitly disclosed in the paragraph

bridging pages 4 and 5 of D2. The larger amount of adhesive used in D2 was not an obstacle for the combination since the skilled person looking for alternative materials would consider it obvious to use a different material as an adhesive while keeping the thickness disclosed in D1, which proved to be convenient. There was no teaching away for the skilled person since the contested patent did not specify the material for the adhesive. The skilled person interested in trying new materials would therefore take into consideration the DYM of the adhesive shown in lines 2 and 3 of page 7 of D2 and would use adhesives having this property in the way disclosed in D1 (i.e. with the same thickness of application). The reasons for the skilled person to consider such materials ranged from improving the acoustic properties of the panel to a mere arbitrary selection.

Reasons for the Decision

1. Admittance of the submission dated 12 May 2023 - Article 13(2) RPBA 2020

1.1 Amendment of the case

1.1.1 The submission dated 12 May 2023 represents an amendment of the opponent's case. Therefore, the Board has the discretion not to admit it under Article 13(2) RPBA 2020.

1.1.2 The opponent submitted **in its reply** to the patent proprietor's statement setting out the grounds of appeal that the objective technical problem considered

by the patent proprietor was not correct, providing arguments in support of this position (see reply, page 2, paragraphs below Figure 2 and also page 3). However, after contesting the technical problem (how to mitigate multiple dips in noise attenuation), the opponent only presented a case based on the objective technical problem of how "*to find an* ***alternative adhesive*** *to D1*" (see reply, page 4, sentence immediately below the figures). This problem was also considered by the opposition division in its decision (see penultimate paragraph of point II.15.2 of the decision).

Within the framework of this technical problem, the opponent pointed out that feature h) (DYM of the adhesive) merely encompassed an arbitrary selection in the form of a **broad range encompassing typical values** for adhesives in acoustic laminates (see page 4 of the reply, from the second paragraph until the end of point 1). The opponent cited D2 as an example of such typical values.

1.1.3 However, the opponent raised a new objection with its **submission dated 12 May 2023**. This objection was based on the technical problem of "how to **implement the board A** of D1". This is different from the previously stated technical problem of "finding an alternative adhesive for the board A of D1", and the reasons provided in support of it are also different. These reasons were based on a number of **mathematical considerations and assumptions** presented for the first time with the late-filed submission.

Thus, the submission dated 12 May 2023, filed after the notification of the summons to oral proceedings, was an amendment to the opponent's appeal case. Consequently,

the Board has the discretion not to take into account this amendment.

1.2 Exercise of discretion

1.2.1 In exercising its discretion not to admit an amendment filed after the notification of the summons under Article 13(2) RPBA 2020, the Board may take into account the criteria listed in Article 13(1) RPBA 2020, e.g. whether a late-filed objection is *prima facie* relevant for the outcome of the case (see Case Law of the Boards of Appeal of the EPO, 10th edn., V.A. 4.5.11.b)).

1.2.2 The late-filed objection raised by the opponent is based on a number of assumptions which are *prima facie* unreliable.

(a) Leaving aside whether the new argument of the opponent on feature g) (panel's DYM) constitutes a new late-filed fact (i.e. the implicit disclosure of this feature in D1), the estimation of the DYM of a composite panel by means of a mere proportional aggregation of the DYM of its components is *prima facie* an oversimplification of the behaviour of such a composite. The standard tests cited in the patent (paragraphs [0019] and [0021]) show that the determination of the DYM requires a more complex approach based on experimentation. Since the disclosed tests enable a proper comparison of prior-art materials with the subject-matter of claim 1, the argument of the opponent that theoretical calculations had to be relied upon is not convincing. Even if it is true that D2 discloses the use of a formula in a similar context (see page 5, lines 28 to 31), this is done

for a different parameter (dynamic stiffness; see page 5, lines 16 and 17) and for a given relationship between the dynamic stiffness of the adhesive and the rigid boards used in D2 (see page 5, lines 7 to 14 and 21 to 26 and page 6, lines 1 to 6). Thus, the disclosure of D2 does not prove *prima facie* that the theoretical approach used by the opponent is suitable for the panel of D1.

(b) The opponent assumes that the 9 mm gypsum plaster boards used in D1 (page 3, lines 32 to 38) correspond to the substrate sheets (12, 13) having a thickness between 6 and 25 mm disclosed in the contested patent. As these substrate sheets (12, 13) are of "conventional plasterboard" (see paragraphs [0016], [0017] and [0025]), the opponent selected the values 2, 3 and 4 GPa as the DYM of the gypsum plaster boards of D1 in view of the values provided in paragraph [0020] of the patent.

This approach is *prima facie* unreliable. First, there is no clear and unambiguous disclosure that the gypsum plaster boards of D1 entail the "conventional plasterboard" of the contested patent. Second, the selection of the values 2, 3 and 4 GPa seems arbitrary; the contested patent does not disclose any value for a board as disclosed in D1 (e.g. of 9 mm thickness), and the determination of the DYM entails a complex method requiring an experimental approach (see paragraph [0019] of the patent). Therefore, the mere extrapolation of values based on parameters of a potentially different board of a different thickness casts doubt on the result.

(c) Relating to feature h) (DYM of the adhesive), the opponent used the **static** Young's modulus of **pure** rubber disclosed in D20 to estimate the **dynamic** Young's modulus (DYM) of the adhesive of D1, which merely comprises rubber as **one ingredient** to be mixed with "*polymers having a fluidity at an ordinary temperature*"; these polymers being moreover the "principal components" of the tacky adhesive (see D1, page 2, lines 58 to 69). Further components such as "*petroleum resin, sap, etc., a softener, and a plasticizer*" are added to the adhesive (see page 2, lines 64 to 67). Since the parameter of D20 concerns a different physical parameter of a different material, it cannot *prima facie* contribute to a meaningful estimation of the DYM of the adhesive of D1.

(d) No conclusions about the **adhesive's DYM** of D1 can be drawn *prima facie* from the comparison between the loss factor of board A in D1 (0.1; see page 3, lines 69 to 72) and the loss factor of the panel disclosed in the contested patent (0.05 to 0.3; see paragraph [0023]). The reasons for this are as follows.

- The properties of the gypsum plaster boards of D1, including their DYM, cannot be established (see preceding point (b)).
- There is *prima facie* no direct relationship between the particular loss factor of a panel and the DYM **of the adhesive** connecting its components since the loss factor is influenced by several other factors (e.g. thickness of the adhesive layer and the DYM **of other components** of the panel).

- The adhesive thickness plays a role in the final properties of the panel, this thickness being undefined in the embodiment of the contested patent considered by the opponent. The embodiment of the patent specification only discloses the application of an adhesive - with an undefined density, meaning it is applied as a layer of **undefined thickness** - at a rate of less than 250 g/m^2 (see paragraph [0024]), whereas D1 discloses a 2 mm thickness for an application of 80 g/m^2.
- The fact that D1's adhesive is acrylic based (see page 3, line 35) and that the embodiment of the patent comprises an acrylic adhesive (see column 2, line 47) does not mean that both must have comparable properties since the family of the acrylic-based adhesives encompasses substances with different behaviours in several respects (see e.g. the light-curing acrylic adhesives in point 17.6.1.4 of D17).

1.2.3 In view of the large amount of question marks surrounding the theoretical considerations and estimates made by the opponent, the Board considers that the amendment to its case presented with the submission dated 12 May 2023 is *prima facie* not convincing and decides not to admit this amendment (including document D20 and the alternatively formulated objective technical problem) into the appeal proceedings for being late filed (Article 13(2) RPBA 2020).

2. Main request - Inventive step, Article 100(a) in conjunction with Article 56 EPC

2.1 Closest prior art - D1

Document D1 discloses a laminated (see page 1, lines 92 to 98) acoustic building panel (Figure 1, 10; see page 1, lines 3 and 4) comprising a first substrate layer (12) and a second substrate layer (12; see page 3, lines 36 and 37) bonded to the first layer by an adhesive layer (14), the panel having a damping loss factor of 10% ($\eta = 0.1$; see page 3, lines 69 to 76, board A), where the ratio of the adhesive to the applied surface area of the substrate is 80 g/m2 (see page 3, lines 32 to 38).

Therefore, D1 discloses features a) to f). This was not contested by the patent proprietor.

2.2 Distinguishing features

Features **g)** (panel's DYM of 0.1 to 5 GPa), **h)** (adhesive's DYM - at 20°C - of 0.1 to 50 MPa at 100 Hz and/or 0.5 MPa to 100 MPa at 1000 Hz) and **i)** (adhesive's loss factor of at least 50% - $\eta > 0.5$) are not clearly and unambiguously disclosed in D1.

This was common ground between the parties.

However, even if the opponent expressly agreed that feature g) was a distinguishing feature, its (late-filed and non-admitted) argument on the presence of feature g) as soon as the skilled person tried to implement board A of D1 amounts to stating that this feature was in fact implicitly disclosed. This is not the case for the reasons explained in point 1.2.2 above. D1 does not explicitly disclose any DYM for board A. The DYM of a composite panel is to be determined by complex experimental methods (see paragraph [0019] of the patent specification), and even if a theoretical determination based on the DYM of the

components of the panel were possible, D1 does not disclose in a clear and unambiguous manner the DYM of the gypsum plaster boards or the tacky adhesive. As the DYM of a panel such as board A is a function of the characteristics of the materials chosen (i.e. the gypsum plaster boards and the adhesive), it cannot be concluded that feature g) is implicitly disclosed by D1. Moreover, the defined range is clearly different to the values disclosed e.g. in prior art D2 (see last paragraph of point 2.4.4 below). Consequently, it cannot be assumed that the range is so broad that it would be necessarily implemented.

2.3 Technical effect and objective technical problem

2.3.1 The selection of the ranges in features g), h) and i) is not an arbitrary selection as argued by the opponent. All parameters defined in features g), h) and i) have an **effect on sound attenuation**. This was not contested by the opponent, which actually argued that the similarity between the loss factor of board A in D1 and the panel of the patent's embodiment implied a certain DYM of D1's adhesive (see point 1.2.2(d) above). Thus, there is no reason to assume that the distinguishing features are an arbitrary selection of broad ranges without any associated technical effect.

2.3.2 "Mitigation of multiple dips" technical problem

The patent proprietor argued that the technical effect of the distinguishing features was that multiple dips in the noise attenuation of an acoustic building panel were mitigated. Consequently, the objective technical problem to be solved was the provision of an acoustic building panel which can mitigate multiple dips in

noise attenuation, as shown in curve A of Figure 2 of the patent specification.

This is not persuasive.

Under established case law (Case Law of the Boards of Appeal of the EPO, 10th edn., I.D.4.1), in the problem-solution approach, an **objective** technical problem must be formulated. This means that an objective assessment must be made when determining the technical problem, i.e. the problem which can be seen to have been solved **in light of the prior art**, which may be different from the prior art which was at the disposal of the inventor (i.e. the one represented in curve A of Figure 2 of the patent specification). This requires the assessment of the technical effect **vis-à-vis the closest state of the art**, i.e. D1.

Figure 7 of D1 discloses that the noise attenuation curve of board A presents no dip within the range of frequencies considered in the contested patent (125 to 4000 Hz; see Figure 2 of the patent for comparison). This is not disputed by the patent proprietor. Consequently, the mitigation of the dips in noise attenuation does not form a difference vis-à-vis the disclosure of document D1, and thus this effect is not suitable for determining the **objective** technical problem.

In view of this consideration, the content of D19 is not relevant any more since this document was filed by the opponent to argue about the number of dips in noise attenuation in a panel. Therefore, the question of D19's admittance into the appeal's procedure can remain unanswered.

2.3.3 "Alternative adhesive" technical problem

The opposition division considered the technical problem of how to provide an alternative adhesive to the one used in document D1 (see point II.15.2 of the impugned decision). The opponent also considered this technical problem in its reply to the patent proprietor's statement setting out the grounds of appeal (see reply, page 4, paragraph directly below the figures).

However, this problem does not take into account distinguishing feature g) (which the opposition division also considered a distinguishing feature, see point II.14.1 of the impugned decision). Feature g) requires that the **panel** has a DYM of 0.1 to 5 GPa. All parties acknowledged that the DYM of the panel has an effect on the sound mitigation provided by the panel. Consequently, the technical problem cannot be regarded as a mere choice of an alternative adhesive. Instead, it has to be focused on the noise attenuation of the panel. Focusing the technical problem on the choice of adhesive is hindsight based and thus not appropriate.

2.3.4 "How to provide an alternative acoustic building panel with the favourable noise attenuation properties of the panel of D1" technical problem

As no further credible technical effect could be established by the parties, the objective technical problem must be defined as how to provide an alternative acoustic building panel with the favourable noise attenuation properties of the panel of D1, i.e. a panel which presents no dips in sound attenuation (see D1, Figure 7, board A). This is in line with the case law cited by the patent proprietor which establishes

that an invention may consist of an alternative solution for a known technical problem (Case Law of the Boards of Appeal of the EPO, 10th edn., I.D.4.5).

2.4 Combinations with the closest prior art

2.4.1 The skilled person starting from board A of D1 would not arrive at the claimed invention after having consulted D2 or in light of their common general knowledge.

2.4.2 Even if D2 belongs to the technical field of acoustic insulation (see e.g. its title), it does not disclose a panel having the favourable noise attenuation properties of board A of D1. In fact, no attenuation curves at all can be seen in D2. Table 1 merely shows the results of some panels ("specimen") for a given frequency in terms of DYM and dynamic stiffness. It is explicitly acknowledged that "*[t]he final acoustic performance of ETICS/EIFS systems will depend on further element characteristics, such as the mass of the supporting wall structure, and the type and mass of render being applied*" (see page 10, lines 15 to 17). Thus, the skilled person would not have any incentive to take the panels of D2 into consideration when addressing the objective technical problem since there is no evidence that it can provide a performance comparable to that of board A (see Figure 7 of D1).

2.4.3 Even if, for the sake of argument, the technical problem identified by the opposition division and the opponent were applied, the contested decision did not provide any reasoning as to why the skilled person would be aware of an adhesive which could be used as an alternative to the **tacky** adhesive of D1 comprising its mechanical and sound attenuating properties (emphasised

on page 2, lines 114 to 124 of D1). Thus, the skilled person would not arrive at the claimed subject-matter simply by applying their common general knowledge on adhesives.

2.4.4 The opponent proposed D2 as disclosure for an alternative adhesive, arguing that this document disclosed the use of a flexible adhesive having a DYM of less than 1.5 N/mm^2 (1.5 MPa) for bonding acoustic insulation panels (see lines 7 to 10 of page 5).

However, even considering - to the benefit of the opponent and for the sake of argument - that D2 discloses the use of the adhesive between acoustic insulation panels and not only for adhering panels to a wall, the Board does not accept this argument since it would presuppose that the skilled person merely adopted the DYM of the D2 adhesive and retained all other features of the D1 adhesive, such as tackiness and thickness. This argument is based on hindsight: the skilled person would take the information on the adhesive of D2 as a whole and either use or not use this adhesive, they would not simply isolate one feature of it. This would amount to an **arbitrary** choice which the skilled person would not make in the absence of a clear prompt in this direction. Furthermore, the opponent has not demonstrated that a tacky adhesive such as that of D1 can be provided with the DYM of the D2 adhesive. In the same way, the Board sees no evidence that a tacky adhesive applied with the thickness of D1 can properly perform its function if it has the DYM of the D2 adhesive. Finally, contrary to the opponent's argument, the content of the contested patent on the adhesive composition is irrelevant in this context. When assessing inventive step, the skilled person is considered to start from the prior

art, in the current case, board A of D1, and cannot start from the patent specification, which is not prior art. Therefore, the content of the contested patent cannot influence what the skilled person would do when starting from the closest prior art.

Furthermore, the skilled person would not consider adopting the adhesive of D2 as a whole for board A of D1. Board A comprises a very specific adhesive, namely an adhesive which remains tacky for a long period of time to ensure some properties of the board (see page 2, lines 25 to 57 and 114 to 124). D2 merely discloses a "flexible adhesive" (see page 5, line 7), not necessarily tacky, let alone for a long period of time. Thus, the skilled person would not combine the adhesive of D2 with D1 since the essential "tacky" feature would be lost.

Even assuming, *arguendo*, that the skilled person would do so, the resulting panel would not comprise feature g) (panel's DYM of 0.1 to 5 GPa). According to D2, when the dynamic modulus of elasticity of the adhesive is less than 1.5 N/mm^2 (1.5 MPa, i.e. **0.0015 GPa**), "*the dynamic modulus of elasticity (Edyn)* ***of the whole composite system*** *as defined above is* ***mainly based on the dynamic modulus of elasticity (Edyn) of the flexible adhesive*** *while the rigid board has only a little contribution to the dynamic modulus of elasticity (Edyn) of the whole composite system*" (see page 5, lines 10 to 14; emphasis added). Thus, the DYM of the resulting panel would be considerably lower than what is defined in feature g).

2.5 In view of the above, the subject-matter of claim 1 involves an inventive step.

3. Article 101(2) EPC

The ground for opposition invoked by the opponent on appeal does not prejudice the maintenance of the European patent.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is maintained as granted.

The Registrar: The Chairman:

C. Spira C. Herberhold

Decision electronically authenticated