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**Datasheet for the decision
of 19 October 2011**

Case Number: T 0185/10 - 3.2.03

Application Number: 99958193.7

Publication Number: 1229183

IPC: E04F 15/02

Language of the proceedings: EN

Title of invention:

Direct laminated flooring product

Patent Proprietor:

Industrias Auxiliares Faus, S.L.

Opponents:

Flooring Technologies Ltd.

Tarkett SAS

Kaindl Flooring GmbH

Spanolux SA

Headword:

-

Relevant legal provisions:

EPC Art. 56

RPBA Art. 13

Keyword:

"Lack of inventive step: main, third, fourth and fifth
auxiliary requests"

"Not admitted into the proceedings: first and second auxiliary
requests"

Decisions cited:

-

Catchword:

-



Case Number: T 0185/10 - 3.2.03

D E C I S I O N
of the Technical Board of Appeal 3.2.03
of 19 October 2011

Appellant: Industrias Auxiliares Faus, S.L.
(Patent Proprietor) Avenida d'Almansa
E-46700 Gandia (ES)

Representative: Röthinger, Rainer
Wuesthoff & Wuesthoff
Patent- und Rechtsanwälte
Schweigerstraße 2
D-81541 München (DE)

Respondent I: Flooring Technologies Ltd.
(Opponent 1) Portico Building
Marina Street
Pieta MSD 08 (MALTE)

Representative: Rehmann, Thorsten
Gramm, Lins & Partner GbR
Theodor-Heuss-Straße 1
D-38122 Braunschweig (DE)

Respondent II: Tarkett SAS
(Opponent 2) 2, rue de l'Egalité
F-92748 Nanterre Cedex (FR)

Representative: Kihn, Henri
Office Ernest T. Freylinger S.A.
234, route d'Arlon
B.P. 48
L-8001 Strassen (LU)

Respondent III: Kaindl Flooring GmbH
(Opponent 3) Kaindlstraße 2
A-5071 Wals (AT)

Representative: Herzog, Markus
Weickmann & Weickmann
Patentanwälte
Richard-Strauss-Straße 80
D-81679 München (DE)

Respondent IV: Spanolux SA
(Opponent 4) Zoning Industriel de Burtonville
B-6690 Vielsalm (BE)

Representative: Metman, Karel Johannes
De Vries & Metman
Overschiestraat 180
NL-1062 XK Amsterdam (NL)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 14 December 2009
revoking European patent No. 1229183 pursuant
to Article 101(3)(b) EPC.

Composition of the Board:

Chairman: U. Krause
Members: Y. Jest
K. Garnett

Summary of Facts and Submissions

I. By its decision dated 14 December 2009 the opposition division revoked European Patent No. 1 229 183 on the grounds that the claimed subject-matter of the patent as granted according to the main request and as amended according to first and second auxiliary requests lacked inventive step having regard to the combination of two documents (D6 and D11) and that the third auxiliary request did not meet the requirements of Article 123(2) EPC.

The opposition division at the same time considered that:

- the subject-matter of the claims as granted (main request) was new (Articles 100(a) and 54(1) EPC), did not contain additional subject-matter within the meaning of Article 100(c) EPC and was sufficiently disclosed (Article 100(b) EPC); and
- the amendments made to the description of the main request did not infringe the requirements of Article 123(3) EPC.

II. The patentee, hereinafter the appellant, lodged an appeal on 27 January 2010 and paid the appeal fee on the same day.

With the statement of grounds received on 23 April 2010 the appellant inter alia filed the following documents:

- D21:** Declaration dated 26 March 2010 of Christian Vandevoorde, who was offered as witness
- D22:** "Profilieren schwimmend verlegbarer Fußbodenelemente", pages 62 to 73 of

"Laminatfußböden - Technik und Technologien",
edited by Heinrich Wemhöner GmbH & Co.KG, 1999.

III. At the end of the oral proceedings on 19 October 2011,
the following requests were made:

The appellant requested that the decision of the
opposition division to revoke the patent be set aside
and the patent be maintained:

- on the basis of the set of claims as granted (main
request), or
- on the basis of an amended set of claims of one of
the auxiliary requests 1 to 5 filed during oral
proceedings, replacing the auxiliary requests which had
been filed with the grounds of appeal, and wherein
claim 1 of auxiliary requests 3 to 5 were no longer
directed to a flooring product but to a method of
manufacturing the same.

The opponents OI, OIII and OIV (Respondents OI, OIII
and OIV respectively) requested that the appeal be
dismissed.

Opponent OII had requested with its letter of 13 August
2010 an extension of time for filing its reply but
since then had remained silent with regard to its
requests and arguments. With a fax dated 29 July 2011
it informed the board that it would not participate in
the oral proceedings and would not be represented at
them.

At the end of the oral proceedings the board announced
its decision.

IV. The prior art considered during the proceedings is as follows:

- D6:** WO-A-97/31776
- D11:** JP-A-63-40055 and its English translation D11a
- D12:** GB-A-2 088 280
- D13:** US-A-5 112 671
- D14:** GB-A-2 054 458
- D18:** "Laminate Flooring - Techniques and Technologies", published by Heinrich Wemhöner GmbH & Co.KG, edited by Hansgert Soiné, printed by Karl Weinbrenner & Söhne GmbH & Co., D-70771 Leinfelden-Echterdingen, 1999, pages 7, 14 and 22 to 24
- D19:** Microphotographs of HPL and DPL products, single page
- D21:** Declaration dated 26 March 2010 of Christian Vandevoorde, who was offered as witness
- D22:** "Profilieren schwimmend verlegbarer Fußbodenelemente", pages 62 to 73 of "Laminatfußböden - Technik und Technologien", edited by Heinrich Wemhöner GmbH & Co.KG, 1999.

V. Claim 1 has the following wording (the numbering of the features (a) to (l) has been introduced by the Board and corresponds to that used by the opposition division in the appealed decision. The other numbering, such as i.1) or m) has been added by the Board and corresponds to additional features, underlined in the text:

(i) Main request (MR) (patent as granted):

- a) "A direct laminated flooring product (4)
- b) comprising cellulose sheets

- c) impregnated with a polymer resin
- d) that are mechanically pressed and cut into the product (4),
- e) wherein the product (4) includes a surface (S) formed from a cellulose sheet
- f) covering the whole surface and
- g) having a design which represents identification characteristics (a_1 , b_1) of a natural product which, in the natural product, have a different relief,
- h) wherein the surface (S) is mechanically formed with a surface texture relief (a, b)
- i) that corresponds and adapts to the identification characteristics (a_1 , b_1) of the natural product which are represented by the design of the cellulose sheet,

characterized in that

- j) the surface (S) of the product (4) includes both a peripheral edge (1) having an edge contour and an interior region,
- k) wherein the peripheral edge (1) includes the cellulose sheet having the design and
- l) is relieved such that the edge contour is below the interior region."

(ii) First auxiliary request (AR1)

- a) " A direct laminated flooring product (4)
... [features (b) to (i) of claim 1 of MR] ...

i.1) and that is in exact correspondence-concordance with the design of the cellulose sheet,

characterized in that

- ... [features (j) to (l) of claim 1 of MR] ...,
- m)** wherein the identification characteristics are one of wood streaks and roughness of natural stone."

(iii) Second auxiliary request (AR2)

- a) " A direct laminated flooring product (4)
... [features (b) to (m) of claim 1 of AR1] ... ,
- n) and wherein the rim is adapted to mate with another laminated flooring product."

(iv) Third auxiliary request (AR3)

- a') "A method of manufacturing a direct laminated flooring product (4)
- b) comprising cellulose sheets
- c) impregnated with a polymer resin
- d) that are mechanically pressed and cut into the product (4),
- e) wherein the product (4) includes a surface (S) formed from a cellulose sheet
- f) covering the whole surface and
- g) having a design which represents identification characteristics (a_1 , b_1) of a natural product which, in the natural product, have a different relief,
- j) and wherein the surface (S) includes both a peripheral edge (1) having an edge contour and an interior region,

characterised in that

- h.3) - during lamination the surface (S) is mechanically formed with a surface texture relief (a, b)
- i) that corresponds and adapts to the identification characteristics (a_1 , b_1) of the natural product which are represented by the design of the cellulose sheet,

i.3) by means of a press comprising a press mould with a relief-texture being in exact correspondence-concordance with the design of the cellulose sheet, and

k.3) - the peripheral edge (1) of the surface (S) (~~includes~~) is provided with the cellulose sheet having the design and

l) is relieved such that the edge contour is below the interior region."

(v) Fourth auxiliary request (AR4)

a') "A method of manufacturing a direct laminated flooring product (4)

b) comprising cellulose sheets

c) impregnated with a polymer resin

d) that are mechanically pressed and cut into the product (4),

e) wherein the product (4) includes a surface (S) formed from a cellulose sheet

f) covering the whole surface and

g) having a design which represents identification characteristics (a_1 , b_1) of a natural product which, in the natural product, have a different relief,

j) and wherein the surface (S) includes both a peripheral edge (1) having an edge contour and an interior region,

characterised in that

h) - the surface (S) is mechanically formed with a surface texture relief (a, b)

i) that corresponds and adapts to the identification characteristics (a_1 , b_1) of the natural product which are represented by the design of the cellulose sheet,

- i.3)** by means of a press comprising a press mould with a relief-texture being in exact correspondence-concordance with the design of the cellulose sheet, and
- k.3)** - the peripheral edge (1) of the surface (S) (~~includes~~) is provided with the cellulose sheet having the design and
- l.4)** is relieved by the press mould such that the edge contour is below the interior region."

(vi) Fifth auxiliary request (AR5)

- a')** "A method of manufacturing a direct laminated flooring product (4)
- b) comprising cellulose sheets
- c) impregnated with a polymer resin
- d) that are mechanically pressed and cut into the product (4),
- e) wherein the product (4) includes a surface (S) formed from a cellulose sheet
- f) covering the whole surface and
- g) having a design which represents identification characteristics (a_1 , b_1) of a natural product which, in the natural product, have a different relief,
- j)** and wherein the surface (S) includes both a peripheral edge (1) having an edge contour and an interior region,

characterised in that

- h.5)** - the surface (S) is mechanically formed with a non-monotonous surface texture relief (a, b)
- i) that corresponds and adapts to the identification characteristics (a_1 , b_1) of the natural product which are represented by the design of the cellulose sheet,

- i.3)** by means of a press comprising a press mould with a relief-texture being in exact correspondence-concordance with the design of the cellulose sheet,
- m)** wherein the identification characteristics are one of wood streaks and roughness of natural stone,
and
- k.3)** - the peripheral edge (1) of the surface (S)
(~~includes~~) is provided with the cellulose sheet
having the design and
 - 1) is relieved such that the edge contour is below the interior region."

VI. The proprietor (appellant) submitted essentially the following arguments:

The documents forming the basis for the main request as well as for the auxiliary requests meet the formal requirements of Articles 100(c), 123 and 84 EPC.

The auxiliary requests AR1 to AR5 filed during the oral proceedings are based on previous requests filed together with the grounds of appeal and depart from them only by minor amendments.

They should therefore be allowed into the proceedings.

Documents D12 and D14 disclose an HPL product and not a direct laminated (DPL) flooring panel as per claim 1. The products shown in D12 and D14 are not provided with a lowered edge contour. The subject-matter of claim 1 of the main request (MR) is thus new.

The subject matter is also inventive having regard to documents D6 and D11, on the basis of which the opposition division concluded that the claimed product was derivable without an inventive step. The product

according to claim 1 as granted differs from the closest prior art shown in D6 not only by feature (l) but also by features (g), (h) and (i).

D6 concerns principally HPL products, as can be derived from the manufacturing method illustrated by figure 1. It refers to DPL processed floorings only in two short passages of the description (third paragraph of page 1 and last paragraph of the description). As defined in claim 1 of D6 and illustrated by figure 1, the paper sheets are continuously laminated by the laminate roller-press (10) before entering a second stage of the process during which the upper surface, i.e. the decor web, of the laminate is mechanically structured by rollers (2,2'). The rollers provide indentations in the decor surface in only two directions (last sentence of the second paragraph of page 2) but are not suitable for performing a three-dimensioned relief texture corresponding to the identification characteristics of a natural product, such as the streaks or knots of a wooden material. This is emphasized by the fact that the use of rollers requires a certain tolerance area because of the demarcation between two adjacent surface sections to be indented (page 3, third paragraph). The step of forming the surface texture of the laminate by using robots (see last paragraph of page 3) is in addition to the rollers, downstream in the process. D6 does not disclose that robots could be used instead of rollers to form different reliefs corresponding to characteristics of natural products in the surface of the laminate.

Because of the historical development leading to HPL/DPL laminates, the skilled person comes from the field dealing with wood technology.

From the differences over D6, two different objective problems are to be defined, namely a better matching in surface texture (features (g) to (i)) and an increased wear resistance at the product edges (feature (l)).

None of the cited documents teaches means for achieving an exact correspondence or matching of the laminate surface in terms of identification characteristics.

The sole document proposing an indentation at the edge portions is D11, which relates however to a distant technical field, namely to carpet-like and tile-type anti-static flooring, in particular removable floating flooring of a double-floor structure. The main problem solved in D11 concerns the drawbacks of plastic tiles due to their thermal expansion/contraction in use, one of these being an appearance problem, in the sense that joints, i.e., the gaps, between laid tiles can be easily seen, something that renders the flooring aesthetically unattractive. This problem is solved by indentations formed at the edges of the tile.

In view of the different type of product (removable anti-static plastic tiles) and of the principal aim addressed by D11 (avoiding drawbacks due to thermal expansion/contraction), the person skilled in the art would not have considered D11 when looking for means of enhancing wear resistance of DPL floorings.

Although D11 describes a further but subsidiary effect of the indentations, namely that during use the joints are no longer kicked up by a person's foot and that peeling at the joints can therefore be prevented, the effect still occurs in connection with the specific type of flooring, i.e. removable anti-static plastic

tile-type flooring. The isolation of a constructional detail of the plastic tiles of D11 from its whole context and its use in combination with a DPL flooring as known from D6 is an *ex-post facto* consideration ("could" approach) based on hindsight, as against the "would" approach required when applying the problem-solution analysis for assessing inventive step.

Auxiliary requests AR1 to AR5

The auxiliary requests filed during oral proceedings contained no substantial change as compared to the subsidiary requests previously on file and should therefore be admitted.

Furthermore, the requirements of Articles 84 and 123 EPC were met by all the requests.

The additional features in claim 1 of auxiliary requests 3 to 5 defined further limitations concerning the manufacturing method, in particular forming the surface texture relief or additionally the depressed peripheral edge during lamination by means of the same press mould, to further distinguish the claimed method from the combination of documents D6 with D11.

VII. The arguments presented by the opponents OI, OIII and OIV (respondents I, III and IV) can be summarized as follows:

(a) Main request - Article 100(c) EPC

The respondents argued essentially that the following features or teachings in the set of claims as granted cannot be directly and unambiguously derived from the

application as originally filed (D0 and translation D0a):

- i) against feature (f) of claim 1 of all the requests: the cellulose sheet covers the whole surface (Respondent I: basis to be found neither in [0008] nor in originally filed claim 2 of D0a);
- ii) against features (h) to (j): these are broader than disclosed in D0a (Respondent IV);
- iii) against feature (k) of claim 1: the peripheral edge includes the cellulose sheet having the design (Respondent IV);
- iv) against feature (l) of claim 1: the edge contour is below the interior region (Respondents III and IV);
- v) against dependent claim 7: the rim is adapted to mate with another product (Respondent I: no basis in [0026] D0a).

(b) Main request - Article 123(3) EPC

Respondent III objected to the amendment made in paragraph [0035] of the patent according to amended page 5, paragraph [0027] (Druckexemplar) of the description, whereby the original expression:

"the deformities extend normal to the surface" was replaced by

"these deformities are normal in surfaces of the material".

It argued that when taken into consideration for determining the claimed subject-matter, the amendment extended the scope of protection as compared to the patent in the case of all the requests. This was due to the fact that the feature "surface texture relief" in claim 1 in the patent as granted meant that deformities

had to extend perpendicularly from the surface; the same feature now interpreted in the light of the amended passage of the description included all kinds of deformity, even those lying within the surface.

(c) Main request - Novelty

Respondent IV argued that the claimed subject-matter was known from D14 and possibly also from D12, since both disclosed a lowered edge (see page 6, lines 67 to 74 of D12: "grout lines each about 0,3 mm deep", and also the general tile pattern of the product of D14, which can be seen in the figures, and page 8, lines 55 to 57).

(d) Main request - Inventive step

Respondents I and III based their argument on lack of inventive step solely on the combination of D6 with D11.

Respondent IV based its objection under Article 56 EPC on several lines of argument, namely:

- D12 combined with D13;
- D14 combined with D13;
- D13 combined with general common knowledge;
- D13 combined with D6.

(e) Auxiliary requests 1 to 5 - Admissibility

The requests were late filed, the claims including additional features extracted from the description and thus should not be allowed (Article 13 RPBA).

Furthermore, auxiliary requests 1 and 2, which had first been filed with the grounds of appeal, had been

abandoned and replaced by requests 1 and 2 as filed with letter of 19 September 2011 and could not be reintroduced again into the proceedings.

(f) Auxiliary requests 3 to 5 - Formal issues

The addition of the expression "during lamination" in claim 1 of auxiliary requests 3 and 4 was an undisclosed generalisation of the process for forming the surface, namely by press-moulding (Article 123(2) EPC).

Claim 1 of auxiliary request 5 lacked clarity since the added feature "roughness of natural stone" was undefined (Article 84 EPC).

Auxiliary request 4 contained no further limiting feature as compared to request 3 and thus infringed rule 80 EPC.

(g) Auxiliary requests 3 to 5 - Inventive step

The method claimed in auxiliary requests 3 to 5 was obviously derivable from the combination of documents D6 and D11 and therefore lacked inventive step.

Reasons for the Decision

1. The appeal is admissible.
2. Late filed documents

During the oral proceedings, the board came to the conclusion that document D22, being late-filed and prima facie not more relevant than other documents in

the proceedings, would not be introduced into the procedure (Article 114(2) EPC).

On the other hand the board considered the declaration of Mr. Vandevoorde (D21) to constitute merely additional comments or arguments of the appellant regarding the issue of inventive step and therefore decided to allow this into the proceedings.

3. Main request

3.1 Formal issues - Articles 100(c) and 123(3) EPC

The main request is based on the set of claims and the figures as granted and on an amended description, namely:

- pages 1, 3, 4 and 6 of the "Druckexemplar" (for grant), and
- pages 2, 2a and 5 filed during opposition proceedings with the letter dated 19 October 2009.

3.1.1 Article 100(c) EPC

Claim 1 as granted does not include additional subject-matter as compared to the application as originally filed (D0 and translation D0a) and therefore does not infringe Article 100(c) EPC.

The board confirms the grounds of the opposition division in the sense that:

- features (f) and (k), requiring that the paper sheet extends over the whole surface including the lowered edge, are disclosed, at least implicitly, in D0a.

Reference is made to paragraphs [0025] and [0029] and to the general object of the invention as claimed;

- feature (l) is sufficiently disclosed in [0006] of D0a, which defines a geometrical property in relation with the centre part of the product; the additional features contained in said paragraph, for instance the depth indication of "a few tenths of mm", concern further developments and are thus not mandatory together with feature (l);
- the general idea of mechanically providing the surface texture relief and the edge (features (h) to (j) of claim 1) is disclosed for instance in claims 1 to 3 as filed;
- dependent claim 7 is disclosed at least by paragraph [0033] of D0a in the sense that rims are "mating" when they are part of tongue-and-groove connection between two units.

3.1.2 Article 123(3) EPC

In the board's view the amendment made in paragraph [0035] of the description of the patent by replacing the original expression "the deformities extend normal to the surface" by "these deformities are normal in surfaces of the material" (reintroduced original wording of paragraph [0028] of EP-A (D0a)) is not a change in meaning. The amendment to the description is therefore not capable of extending the scope of protection.

The documents making up the main request therefore do not infringe Article 123(3) EPC.

4. Main request - Novelty

D12 does not refer to a direct laminated flooring product (feature (a) of claim 1) but more generally relates to a semi-finished HPL product for decorative thermosetting plastic laminates comprising a pre-embossed decorative paper sheet. Additionally, the board considers that the white grout lines, each about 0,3 mm deep and separating the orange brown tiles referred to on page 6, lines 67 to 74, do not refer to a lowered edge contour of the product itself but are merely part of the relief or design formed in the surface of the product unit, so that feature (1) is not disclosed in D12.

The claimed structure differs from the product known from D14 by the same features (a) and (1).

The subject matter of claim 1 is therefore novel over this prior art.

5. Main request - Inventive step

5.1 Closest prior art

In D6, which represents the closest prior art, two different processes are disclosed for manufacturing the laminated flooring products.

According to a first method the laminate is made in a continuous laminate press (10 in figure 1) followed by a roller press (2) for forming a relief decor pattern in the decor web of the laminated product. As illustrated by figure 1, the paper sheets are continuously laminated by the laminate roller-press (10)

before entering a second stage of the process, during which the upper surface, i.e. the decor web, of the laminate is mechanically structured by rollers (2,2'). Here the rollers can provide indentations in the decor surface only along two directions (last sentence of the second paragraph of page 2). The board can agree with the appellant that the rollers are not suitable for providing a three-dimensioned relief texture which corresponds to the identification characteristics of a natural product, such as the streaks or knots in a wooden material. This is emphasized by the fact that the use of rollers requires a certain tolerance area because of the demarcation between two adjacent surface sections to be indented (page 3, third paragraph). The use of robots for forming the surface texture of the laminate as suggested in the last paragraph of page 3 as well as page 7, second paragraph of D6 appears either to be an additional step downstream of the roller press for a further mechanical processing of the surface layer or to form an alternative to the roller press. The latter was disputed by the appellant. The robots are, in contrast to the roller press, perfectly appropriate for imprinting a more complex relief structure which reflects and corresponds to the characteristics of natural products in the surface of the laminate.

Independently of this, the board considers that a further disclosure contained in the description and dealing with an alternative embodiment is particularly relevant to this issue. This second and alternative process consists in using press plates for pressing the laminates (see third paragraph of page 1 and paragraph

bridging pages 7 and 8). The decor pattern is then pressed into the decor web during lamination.

The mechanically pressed or laminated flooring product according to D6 comprises cellulose sheets (1, 4, 4', 5) impregnated with a polymer resin (page 5, third paragraph), including a surface (1, 5) formed from a cellulose sheet covering the whole surface.

According to the third paragraph of page 1 of D6, a negative (i.e., reverse) reproduction of the structure in the press plate will be imprinted into the laminate during the lamination procedure, the pattern so produced representing the image of wood or minerals such as marble or granite. This process thus fulfils the criteria set out in features (g) to (i) of claim 1 since the negative reproduction mechanically formed by the plate press provides a surface texture relief corresponding to the identification characteristics of a natural product (for instance marble).

The final product obtained after cutting the laminate produced by this lamination process unavoidably has a surface including both a peripheral edge having an edge contour and an interior region, wherein the peripheral edge (1) includes the cellulose sheet having the design (features (j) and (k) of claim 1).

5.2 Difference - Skilled person - Technical problem

The product of claim 1 therefore differs from D6 only in feature (l), namely in the fact that the peripheral edge is relieved such that the edge contour is below the interior region.

The technical effect of this measure is indicated in paragraph [0017] of the patent, namely that the soles of a person's shoe do not rest on or damage the perimeter edges.

The objective problem which can be derived from the distinguishing feature (1) is thus to provide a direct laminated flooring product with increased wear resistance so as to overcome the wear problem.

In view of the general technical field of the claimed product and of the definition of the technical problem, the skilled person is the person active in the field of manufacturing laminate floorings, encompassing not only the original types of such floorings, made of wood, but also all the laminate flooring products made of more recent materials (HPL, CPL, DPL, LPL), available and already used for that purpose at the priority date of the patent.

The skilled person would therefore consider the state of the art in the general field of floorings when looking for a solution to the objective problem.

5.3 General knowledge

The board is not persuaded by the appellant's argument that the skilled person would, as a first and final reaction, increase wear resistance of the flooring by varying or changing the materials of the laminate used in D6 so as to provide a harder structure surface of the laminate and thus solve the problem.

A change of material for the laminate would only be contemplated by the skilled person as a satisfactory solution if it was not accompanied by other drawbacks,

for instance a loss in the required quality (appearance, touch) of the structured surface because of a hard outer layer over the whole extent of the flooring surface. The skilled person might well depart from such a solution, especially if it was clear that the wear problems to be addressed were actually limited to the narrow adjoining areas between two panels.

5.4 Prior art D11

Contrary to the appellant's views, the board considers that the skilled person would not have immediately disregarded document D11. The mere fact that D11 relates to floorings made of plastic tiles glued onto a sub-floor (D11a, page 12, second paragraph) for replacement of previously used PVC carpets, does not exclude this state of the art from the scope of documents potentially relevant. The major reason for the skilled person considering D11 is that D11 generally refers to floorings made of panels with joints at their adjacent edges where wear-damage may occur. The absence of any tongue-and-groove joints at the edges of the tiles does not disqualify D11 either, since the wear problem at the joint areas is, from a technical understanding, not limited to DPL flooring panels provided with tongue-and-groove connections. Further, claim 1 does not require them. The skilled person would thus consider D11 and determine its teaching.

It can be agreed with the appellant that the main object described in D11 concerns the provision of an anti-static flooring (page 1 of D11a) and more particularly to a flooring made of tiles which can be

laid onto and removed again from floor boards of a double floor structure receiving electric wirings (page 2 of D11a), whereby the problems due to thermal expansion and contraction of plastics tiles are eliminated (see page 3, first paragraph and page 10, lines 1 to 21 of D11a). This is achieved by the tile-type anti-static flooring as defined by the physical properties of the laminate layers defined in claim 1 of D11a.

The teaching of D11 is however not limited to the composition of the laminate layers but concerns a second object, namely the formation of a indentation (8) in the peripheral portion of each tile (page 12 of D11a, third paragraph). This second aspect has the same degree of importance in D11 as the first, since it is reflected by a feature in claim 1.

The indentation at the edge portion deals with the problems occurring at the joints (dirt ingression, fray at the tile edges) as defined at page 3, second paragraph of D11a. The provision of indentations enables the reduction of wear and damage to the flooring (see page 10, lines 21 to 28) and prevents the joints being kicked up by a person's foot and thus damage to or peeling of the joints (page 12, third paragraph of D11a).

The technical effect of the peripheral indentations can therefore be summarised as preventing wear at the joints.

It may be added here that the surface of the plastic tiles of D11 can be formed by a coinciding embossing method wherein embossing is performed while making the texture coincide with printed patterns; in this case the indentations can be formed during the embossing

process for the surface structure (page 9, second paragraph of D11a).

5.5 Obvious solution

Since D11 proposes a solution to the wear problem at the juncture edges of the flooring panels, the person skilled in the art would have applied the teaching of D11 and provided lowered contour edges for the panels obtained by the press mould process disclosed in D6. The most obvious and immediate way of providing such lowered portions in the panels obtained in D6 would be to design the moulding surfaces of the press mould with an additional rib or ridge for embossing a lowered edge contour during a single embossing process.

5.6 The process of claim 1 and the resulting product of the claim would thus have been obviously derivable by the skilled person from the combination of D6 with D11 and therefore the process lacks inventive step within the meaning of Article 56 EPC.

6. Auxiliary requests

6.1 Admissibility - Article 13 RPBA

The auxiliary requests were filed during oral proceedings, thus at a late stage.

Auxiliary request AR1 corresponds to the former first auxiliary request filed with the statement of the grounds of appeal dated 23 April 2010 but was then dropped by the appellant in the letter dated 19 September 2010. No objective reason or justification

was given by the appellant why this request should nevertheless be reintroduced into the proceedings.

The amended claim 1 of auxiliary request AR2 *prima facie* lacks clarity (Article 84 EPC) since the added feature (n) defining "the rim":

and wherein the rim is adapted to mate with another laminated flooring product

is undefined without the further incorporation of the features of dependent claim 6.

Auxiliary requests AR1 and AR2 are therefore not admitted into the proceedings in accordance with Article 13 RPBA.

The revised claim 1 of each of auxiliary requests AR3 to AR5 fulfils the formal requirements of the EPC so that these requests can be admitted into the proceedings.

6.2 Inventive step

Claim 1 of each of the auxiliary requests AR3 to AR5 is directed to a method of manufacturing a direct laminated flooring product (feature (a')). Additionally some features have been added as compared to claim 1 of the main request, namely:

- features (j), (h.3) and (i.3) in auxiliary request AR3:

j) and wherein the surface (S) includes both a peripheral edge (1) having an edge contour and an interior region,

h.3) during lamination the surface (S) is mechanically formed with a surface texture relief (a, b)

i.3) by means of a press comprising a press mould with a relief-texture being in exact correspondence-concordance with the design of the cellulose sheet;

- features (j), (i.3) and (l.4) in auxiliary request AR4:

l.4) (*the peripheral edge*) is relieved by the press mould such that the edge contour is below the interior region;

- features (j), (i.3), (h.5) and (m) in auxiliary request AR5

h.5) the surface (S) is mechanically formed with a non-monotonous surface texture relief (a,b)

m) wherein the identification characteristics are one of wood streaks and roughness of natural stone.

All these additional features are however already obtained or fulfilled by the method resulting from the combination of D6 with D11, which combination rendered the subject-matter of claim 1 of the main request obvious in application of the problem-solution approach.

Features (i.3), (j), (h.3), (h.5) and (m) are disclosed per se in D6: see the definition of press-moulding in the third paragraph on page 1. They would have additionally have been obvious applying the problem-solution approach as for the main request.

Feature (1.4) requires that the edge contour is lowered by pressing during the same, single step during which the surface texture relief is formed by the press mould. The skilled person would have envisaged lowering the peripheral edge of the flooring product during the lamination process, e.g. during the press-moulding of the panel to include the realisation of the surface relief. The state of the art disclosed in D11, which would already have prompted the skilled person to provide a lowered peripheral edge of the panel, goes even further and suggests explicitly (see second paragraph of page 9 of D11a) lowering the contour edge (in fact forming the indentations) by press-moulding during the press-moulding of the surface relief, thus providing these two machined formations at the same time.

The method defined in claim 1 of the auxiliary requests AR3 to AR5 is thus obviously derivable from the combination of D6 with D11 and therefore lacks inventive step (Article 56 EPC).

6.3 The auxiliary requests AR3 to AR5 therefore do not comply with the provision of Article 52(1) EPC.

6.4 Formal issues

In the absence of inventive step of the subject-matter of claim 1 of each of these requests (Article 56 EPC), the auxiliary requests are not allowable under the provision of Article 52(1). An additional analysis of the formal issues relating to these requests or a partial decision on the merits of the corresponding objections of the respondents is thus not required.

7. Conclusion

None of the admissible requests concerns patentable subject-matter which could form the basis for the maintenance of the European patent Nr. 1229183 revoked by the opposition division in the decision under appeal.

Order

For these reasons it is decided that:

The appeal is dismissed.

The registrar:

The Chairman:

D. Hampe

U. Krause