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**Datasheet for the decision
of 13 February 2023**

Case Number: T 0029/22 - 3.2.01

Application Number: 13161357.2

Publication Number: 2649898

IPC: A01K63/04

Language of the proceedings: EN

Title of invention:

Shoe upper

Patent Proprietor:

adidas AG

Opponent:

NIKE Innovate C.V.

Headword:

Relevant legal provisions:

EPC Art. 54, 56, 100(a)
RPBA 2020 Art. 12(6), 13(2)

Keyword:

Main and auxiliary requests 1 and 2 - Novelty - (yes)
Main request and auxiliary requests 1-7 - Inventive step - (no)
Late-filed request 1a - error in use of discretion at first
instance (no) 2a-2j and 8-10- should have been submitted in
first-instance proceedings (yes) 6a after summons -
exceptional circumstances (no)

Decisions cited:

Catchword:



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Case Number: T 0029/22 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 13 February 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
4 November 2021 concerning maintenance of the
European Patent No. 2649898 in amended form.**

Composition of the Board:

Chairman G. Pricolo
Members: S. Mangin
A. Jimenez

Summary of Facts and Submissions

- I. The appeals were filed by appellant 1 (patent proprietor) and appellant 2 (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 2, the patent in suit (hereinafter "the patent") met the requirements of the EPC.
- II. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as granted, or in the alternative that the patent be maintained on the basis of one of the auxiliary requests 1, 1a, 2, 2a-2j, 3-6, 6a, 7-10, wherein auxiliary request 1 was filed with the statement of grounds of appeal, auxiliary request 2 corresponded to the version found allowable by the opposition division, auxiliary requests 2a-2j and 3-10 were filed with the reply to the statement of grounds of appeal and auxiliary requests 1a and 6a were filed with letter of 13 January 2023. The patent proprietor mentioned that auxiliary request 1a filed on 13 January 2023 was a corrected version of the auxiliary request 1a filed with the statement of grounds of appeal.
- Appellant 2 (opponent) requested that the decision under appeal be set aside and the patent be revoked.
- III. In particular, the opposition division held that
- The subject-matter of claim 1 of the main request and auxiliary request 1 was novel over D2 (US 2010/0037483 A1) but lacked novelty over D7 (WO 2012/151408 A2, Article 54(3) document).
 - Auxiliary request 1a filed during the oral proceedings was not admitted in the opposition

proceedings as this late filed request could have been filed earlier and did not satisfy the "clear allowability" criterion.

- The subject-matter of auxiliary request 2 was novel over D7, D1 (US 2006/0048413 A1) and D2 and involved an inventive step starting from D2 in combination with either the common general knowledge or D1 or starting from D1 in combination with either the common general knowledge or D2.

IV. Oral proceedings were held before the Board on 13 February 2023 via videoconference.

V. Claim 1 of the main request reads:
Shoe upper (1) for a shoe, in particular a sports shoe (2), having,
a. a first portion and a second portion which are jointly manufactured as a knitted fabric (11, 12, 13);
b. wherein in only one (610, 650) of the first portion and the second portion the knitted fabric (11, 12, 13) is reinforced by a coating from a polymer material applied to the shoe upper (1);
c. characterized in that the polymer material is applied to the inside of the shoe upper (1).

Claim 10 of the main request reads (letters a, b, c added by the Board to show the correspondence with the product features of claim 1 designated with a, b, c):

Method of manufacture of a shoe upper (1) for a shoe, in particular a sports shoe (2),
a. wherein the shoe upper (1) comprises a first portion and a second portion which are jointly manufactured as a knitted fabric (11, 12, 13), comprising the step of:

- b. applying a polymer material as a coating in only one (610, 650) of the first portion and the second portion of the shoe upper (1);
- c. characterized in that the polymer material is applied to the inside of the shoe upper (1).

- VI. Claims 1 and 10 of auxiliary request 1 correspond respectively to claims 1 and 10 of the main request with the addition of feature d1:
"wherein the polymer material comprises fibers".
- VII. Claims 1 and 10 of auxiliary request 1a correspond respectively to claims 1 and 10 of the main request with the addition of feature d1a:
"wherein the polymer material comprises fibers reinforcing the polymer material"
- VIII. Claims 1 and 9 of auxiliary request 2 correspond respectively to claims 1 and 10 of the main request with the addition of feature d2:
"wherein the polymer material comprises a non-woven polymer material".
- IX. Claims 1 and 8 of auxiliary request 2a correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2a:
"wherein the polymer material is applied with a thickness of 0.2-1 mm in at least one layer".
- X. Claims 1 and 9 of auxiliary request 2b correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2b:
"wherein the polymer material is applied to the shoe upper in a liquid state".

- XI. Claims 1 and 9 of auxiliary request 2c correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2c:
"wherein the polymer material is sprayed on".
- XII. Claims 1 and 9 of auxiliary request 2d correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2d:
"wherein the applied polymer material has a hardness in the range of 40-60 shore D".
- XIII. Claims 1 and 9 of auxiliary request 2e correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2e:
"wherein the polymer material comprises carbon fibers or para-aramid fibers".
- XIV. Claims 1 and 9 of auxiliary request 2f correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2f:
"wherein the polymer material has a viscosity in the range of 15-80 Pa.s at 90-150°C".
- XV. Claims 1 and 9 of auxiliary request 2g correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of features designated above with e2b, e2d and e2f:
"e. wherein the polymer material is applied to the shoe upper in a liquid state;
f. wherein the applied polymer material has a hardness in the range of 40-60 shore D; and
g. wherein the applied polymer material has a viscosity in the range of 15-80 Pa.s at 90-150°C"

- XVI. Claims 1 and 9 of auxiliary request 2h correspond respectively to claims 1 and 9 of auxiliary request 2 with amended features c and d as follows:
"c. characterized in that the polymer material is applied to the inside and to the outside of the shoe upper (1)";
"d. wherein the polymer material on the inside comprises a non-woven polymer material".
- XVII. Claims 1 and 9 of auxiliary request 2i correspond respectively to claims 1 and 9 of auxiliary request 2 with the addition of feature e2i:
"wherein the knitted fabric comprises a fuse yarn in at least one layer".
- XVIII. Claims 1 and 9 of auxiliary request 2j correspond respectively to claims 1 and 9 of auxiliary request 2 with feature a amended as follows:
"a. a first portion and a second portion which are jointly manufactured as a knitted fabric (11,12,13) comprising a monofilament".
- XIX. Claims 1 and 9 of auxiliary request 3 correspond respectively to claims 1 and 10 of the main request with the addition of feature d3:
"wherein the polymer material is applied with a thickness of 0.2-1mm in at least one layer".
- XX. Claims 1 and 10 of auxiliary request 4 correspond respectively to claims 1 and 10 of the main request with the addition of feature d4:
"wherein the polymer material is applied to the shoe upper in a liquid state".

- XXI. Claims 1 and 10 of auxiliary request 5 correspond respectively to claims 1 and 10 of the main request with the addition of feature d5:
"wherein the applied polymer material has a hardness in the range of 40-60 shore D".
- XXII. Claims 1 and 10 of auxiliary request 6 correspond respectively to claims 1 and 10 of the main request with the addition of feature d6:
"wherein the polymer is sprayed on".
- XXIII. Claims 1 and 10 of auxiliary request 7 correspond respectively to claims 1 and 10 of the main request with the addition of features above designated as d7, e7 and f7:
"d. wherein the polymer material is applied to the shoe upper in a liquid state;
e. wherein the applied polymer material has a hardness in the range of 40-60 shore D; and
f. wherein the applied polymer material has a viscosity in the range of 15-80 Pa.s at 90-150°C"
- XXIV. Claims 1 and 10 of auxiliary request 8 correspond respectively to claims 1 and 10 of the main request with feature c being amended as follows:
"characterized in that the polymer material is applied to the inside and to the outside of the shoe upper (1)".
- XXV. Claims 1 and 10 of auxiliary request 9 correspond respectively to claims 1 and 10 of the main request with the addition of feature d9:
"wherein the knitted fabric comprises a fuse yarn in at least one layer".

XXVI. Claims 1 and 10 of auxiliary request 10 correspond respectively to claims 1 and 10 of the main request with feature a being amended as follows:
"a first portion and a second portion which are jointly manufactured as a knitted fabric (11, 12, 13) comprising a monofilament".

Reasons for the Decision

1. Auxiliary request 2 - Novelty - Article 54(2) EPC
 - 1.1 Auxiliary request 2 corresponds to the set of claims found allowable by the opposition division. The subject-matter of claim 1 differs from D2 in that the shoe upper is a knitted fabric (feature a) and is therefore novel over D2.
 - 1.2 Appellant 2 was of the opinion that D2 disclosed feature a *"a first and second portion which are jointly manufactured as a knitted fabric"*
 - 1.2.1 In their view, paragraph [29] of D2 disclosed that the foundation element 31 of the upper 30 may be provided as a textile. Paragraph [36] provided a general explanation of the term textile, which was applicable to the textile of the foundation element 31. Therefore, when considering the disclosure given in paragraphs [29] and [36], as read in a technical and logical context, it was directly and unambiguously clear to the skilled person that the foundation element 31 may be provided as a knitted fabric, such as that discussed in paragraph [36].
 - 1.2.2 The Board does not agree. Paragraph [29] of D2 discloses that the foundation element 31 may be a

"textile". "Textile" is a general term which does not take away the novelty of the specific "knitted fabric". The disclosure of the different types of textiles in paragraph [36] is in the context of the base layer 42 and the cover layer 43. A combination of the two disclosures is a matter of inventive step and cannot be considered as a direct and unambiguous disclosure of the combined features.

1.3 Appellant 1 was of the opinion that D2 did not disclose feature d2, *"wherein the polymer material comprises a non-woven polymer material"* for the following reasons:

1.3.1 Firstly, the sentence of paragraph [36] relied for the disclosure of the base layers 42 and the cover layer 43 being a non-woven polymer material, was not in a direct specific relation with these layers. The sentence starting with *"Textiles are generally manufactured"* was not intended to be limited to the base layer 42 and the cover layer 43 but to textiles used in various elements or layers of the article footwear.

Secondly, in paragraph [36] option (a), textiles produced directly from webs of fibers by fusing to construct non-woven fabrics, did not require the fibers to be of a polymer material. Natural fibers with a fusible bonding agent could be used.

Thirdly, the skilled person at most derived from paragraph [37] of D2 that the thermoplastic polymer material may be utilised to form bonds between base layer 42 and cover layer 43, base layer 42 and strands 41 and base layer 42 and foundation element 31. However, it is not disclosed or implied that the thermoplastic polymer material was used for the

construction of non-woven fabrics of paragraph [36] of D2.

Fourthly, the disclosure of feature d2 required to choose a non-woven fabric among the suitable materials for layers 42 and 43 disclosed in paragraph [36] (first list) and to choose between a thermoplastic polymer sheet and a textile that included filaments or fibers formed from thermoplastic material in paragraph [0037] (second list). Feature d2 required the selection of elements from two lists and could not therefore be regarded as disclosed in D2.

- 1.3.2 The Board does not agree. Paragraph [36] of D2 discloses that a suitable material for the base layer 42 and the cover layer 43 includes among others non-woven fabrics and felts produced directly from webs of fibers by bonding, fusing or interlocking. Paragraph [36] deals exclusively with the base layer 42 and the cover layer 43. Therefore, the sentence in the middle of this paragraph starting with "*textile are generally manufactured*" relates to the base layer 42 and the cover layer 43 even if the word "generally" is used in the sentence.

Furthermore, while the option "produced directly from webs of fibers by fusing" in paragraph [36] cannot be considered as a direct and unambiguous disclosure that the fibers are fused and are made of polymer material, paragraph [37] of D2 discloses as examples for the base layer 42 incorporating a thermoplastic polymer material:

- (a) a thermoplastic polymer sheet
- (b) a textile that includes filaments or fibers formed from a thermoplastic polymer material, or,

(c) a combination of textile and thermoplastic polymer sheet.

In view of paragraphs [36] and [37] of D2, the skilled person would directly and unambiguously derive that the base layer may be a non-woven made of thermoplastic filaments or fibers.

Finally, there is not a two-list selection. The selection of a non-woven fabric in paragraph [36] in combination with the use of thermoplastic polymer material (e.g. thermoplastic polyurethane) to facilitate bonding disclosed in paragraph [37] requires the skilled person to choose option (b) *"a textile that includes filaments or fibers formed from a thermoplastic polymer material"*. Indeed, the thermoplastic polymer sheet is not an option as non-woven fabric has been chosen.

2. Auxiliary request 2 - Inventive step starting from D2 - Article 56 EPC

The subject-matter of auxiliary request 2 does not involve an inventive step over D2.

Starting from D2, the subject-matter of claim 1 of auxiliary request 2 only differs from the shoe upper of D2 by the use of a "knitted fabric" over "textile" in D2.

2.1 Appellant 1 was of the opinion that starting from D2's tensile element 40 in figure 15D as sandwich structure having multiple layers and strands positioned in between, wherein the tensile element was secured to the foundation element 31, the skilled person did not have an incentive or motivation to consider any of the

technically different shoe uppers of the other prior art documents.

Moreover, the references listed in the background section of the opposed patent could not demonstrate that it was common general knowledge to implement shoe uppers as knitted fabrics, as patent documents cannot normally be considered as common general knowledge. In addition, none of these references would be considered by the skilled person for D2's foundation element 31 and tensile element 40 as outlined above for the other cited prior art.

Furthermore, there was also no "one-way street" situation from D2 alone, wherein the unexpected effects of knitted shoe uppers like considerably greater stretchability and reduced production efforts (s. opposed patent, paragraph [0005]) were merely bonus effects. In fact, the skilled person must choose the claimed knitted fabric for D2's foundation element 31 but there was no clear pointer in the prior art so that the above-mentioned unexpected effects led to the recognition of an inventive step.

2.2 The Board does not agree. Starting from D2, figure 15D and in particular paragraphs [29], [36] and [37], the only difference between the subject-matter of claim 1 and the shoe upper of D2 is that the foundation element 31 is made of a textile, which is more general than the claimed knitted fabric.

Starting from D2, the problem to be solved may be regarded as to provide a suitable textile for the shoe upper.

A knitted fabric is a specific type of textile which is known to be used in footwear as disclosed in paragraph [36] of D2 in relation with the base layer 42 and the covers layer 43: "*Textiles can be formed through mechanical manipulation of yarn to produce a woven or knitted fabric*". Starting from D2, it is therefore obvious for the skilled person to select a knitted fabric for the foundation element 31.

As mentioned by appellant 2 the prior art cited in the patent (paragraphs [0003]-[0006] and [0008]) uses knitted shoe upper. The Board notes that while patent literature is not normally considered as common general knowledge, when a serie of patent specifications provides a consistent picture that a particular technical procedure is generally known, then it may constitute evidence of common general knowledge.

To conclude the choice of a knitted fabric among the listed textiles in paragraph [36] is an obvious choice for the skilled person in footwear.

3. Main request and auxiliary request 1

The main request corresponds to auxiliary request 2 without feature d2 and auxiliary request 1 corresponds to auxiliary request 2 with feature d1 "*wherein the polymer material comprises fibers*" instead of feature d2 "*wherein the polymer material comprises a non-woven polymer material*". The main request and auxiliary request 1 are broader than the auxiliary request 2 (as regards feature d1 it encompasses feature d2 because a non-woven polymer material is a specific case of a polymer material comprising fibers). They are novel over D2 but do not involve an inventive step starting

from D2 for the same reasons as for auxiliary request 2. Reference is made to the above points 1 and 2.

4. Admissibility of auxiliary request 1a - Article 12(6) RPBA 2020, first sentence

4.1 Auxiliary request 1a filed with the statement of grounds of appeal and corrected with letter of 13 January 2023 is based on the main request with the additional feature d1a:

"wherein the polymer material comprises fibers reinforcing the polymer material"

Pursuant Article 12(6) RPBA 2020, first sentence, the Board does not admit auxiliary request 1a which was already filed during the oral proceedings and not admitted by the Opposition Division.

4.1.1 During oral proceedings, appellant 1 referred to its written submission.

Appellant 1 argued that auxiliary request 1a was a direct reaction to the new discussion about the relevance of paragraph [52] of D7 during oral proceedings in opposition. Therefore, auxiliary Request 1a should have been admitted.

Firstly, the critical paragraph [52] of D7 was not even mentioned in the Opposition Division's preliminary opinion dated January 31, 2020.

Secondly, there was no "similar argument" (interlocutory decision, section no. 15) of the Opposition Division in its preliminary opinion. The Opposition Division cited in the preliminary opinion paragraph [26] of D7 not mentioning the fusible yarn

114 whereas the decision missed this paragraph and was based on paragraphs [23]-[24] and [27] and the fusible yarn 114.

Thirdly, the opponent's (first) submission dated 28 April 2020 mentioned indeed paragraph [52], however based on a line of argumentation that was completely different to the line of argumentation in the oral hearing and in the decision of the Opposition Division. In its submission of 28 April 2020 the opponent had argued that the component 304 (mentioned in paragraph [52]) may have the configuration of the knit component 110 (mentioned in paragraphs [22] and [23]) formed from non-fusible yarn 113 containing natural fibers, which could be seen by opponent's underlining (s. section no. 4.2 on page 13 in the opponent's submission dated 28 April 2020).

Moreover, the requirements of Articles 123(2), (3) and 84 EPC for auxiliary Request 1a were also fulfilled. In particular, basis for the amendments could be found in paragraphs [0067], [0013] and [0017] of the A1 publication. Regarding novelty and inventiveness, the arguments presented for the claims of auxiliary Request 1 in view of D7 must also apply, a fortiori, for the claims of auxiliary Request 1a.

- 4.1.2 The Board confirmed its preliminary opinion stated in its communication pursuant Article 15(1) RPBA 2020. The Board did not recognise any error in the use of discretion by the Opposition Division not to admit the auxiliary request 1a (Reference is made to points 13-15 of the appealed decision). Indeed, the Opposition Division considered that the lack of novelty of auxiliary request 1a was to be expected in view of

their preliminary opinion from 31 January 2020 and the letter of the opponent dated 20 April 2020.

While the annex to the summons of the opposition division may be referring to different paragraphs compared to the decision, the letter of the opponent dated 28 April 2020 specifically mentions paragraph [52] as well as [22] and [23] as referred to in the decision of the opposition division. And while the opponent may have emphasised that the non-fusible materials may be made of natural fibers, the passage cited from paragraph [23] discloses that they can be made of *"thermoset polymer materials (e.g., polyester, acrylic)"*.

Furthermore, the amendments made to auxiliary request 1a were taken from paragraph [0068] of the patent specification, column 13, second sentence (i.e. paragraph [0067] of the A1-publication, sentence bridging column 12 and 13). The amendments were not taken verbatim and raised new issues under Articles 123(2) and 84 EPC.

5. Auxiliary requests 2a-2j and 8-10 - Admissibility under Article 12(6) RPBA 2020, second sentence

Auxiliary requests 2a-2j and 8-10 were not admitted in the appeal proceedings pursuant to Article 12(6) RPBA 2020.

Auxiliary requests 2a-2j and 8-10 were filed for the first time with the reply to the statement of grounds of appeal.

- 5.1 Appellant 1 argued that these requests were filed in direct reaction to the argumentation of the opponent in

the statement of grounds of appeal for the disclosure of paragraphs [0036] and [0037] of D2 and the question whether a non-woven polymer material is disclosed therein or not. Each request distinguishes over D1's intermediate layer 50 and D2's base layer 42/cover layer 43 and also provides a respective technical (synergistic) effect.

- 5.2 The Board concluded that these requests should have been submitted in the proceedings leading to the decision under appeal.

In their notice of opposition, under point 3.3 on page 13, the opponent (now appellant 2) raised an objection of lack of novelty of claim 1 of the patent as granted based on the embodiment of figure 15D of D2 and referred to paragraph [0036], further under point "5.6 claim 7", the opponent referred to paragraph [0037] of D2. These two paragraphs were brought to the attention of the proprietor from the outset of the opposition proceedings.

Furthermore, in their letter of 28 April 2020 (see point 5.2 on page 15), the opponent (now appellant 2) raised an objection of novelty against the subject-matter of claim 1 of auxiliary request 2 in view of D2 referring to paragraph [0036] same as statement of grounds of appeal.

The proprietor (now appellant 1) also replied to this objection with letter of 17 July 2020 and submitted 2 additional auxiliary requests (9 and 10). Under point "II Auxiliary request 2" on page 15, the proprietor commented specifically on the novelty objection in view of paragraph [0036] of D2.

In view of the above, appellant 1 should have filed all of their requests with their letter of 17 July 2020 in

opposition proceedings when they submitted auxiliary requests 9 and 10 or at the latest during the oral proceedings before the opposition division and not wait until the appeal proceedings to file new requests. The circumstances of the appeal case do not justify the admittance of auxiliary requests 2a-2j and 8-10.

6. Auxiliary request 3 - Inventive step over D2 - Article 56 EPC

The subject-matter of auxiliary request 3 does not involve an inventive step over D2.

Auxiliary request 3 corresponds to the main request with the addition of feature d3 reading: *"wherein the polymer material is applied with a thickness of 0.2-1 mm in at least one layer"*.

6.1 Appellant 1 argued that that the thickness of 0.2-1 mm is the total thickness of the polymer material, whether one or several layers are applied. This interpretation is, in their view, in line with paragraphs [0016] and [0062] of the patent.

The above recited feature d3 had a synergetic effect with the knitted fabric of feature a, namely to reduce the greater flexibility and stretchability of the knitted fabric with a coating having a specific thickness in order to achieve sufficient stability (s. opposed patent, paragraphs [0003], [0005], [0062], [0063]) so that there was no "aggregation or juxtaposition of features".

The polymer coating with such thicknesses may also penetrate the yarn and soak it and thus contributed to

stiffening (s. opposed patent, paragraphs [0062], [0063]).

Neither D2 nor any of the cited prior art disclosed the application of a polymer material with a thickness of 0.2-1 mm on a knitted fabric. Therefore, the subject-matter of claim 1 involved an inventive step over D2.

6.2 The Board does not agree.

Firstly, feature d3 does not limit the overall thickness of the polymer material applied. Feature d3 is to be understood as the polymer material being applied in one or more layers, each layer having a thickness between 0.2 and 1 mm. This understanding is in line with paragraphs [0016] and [0062] of the patent which read: *"the polymer material is applied in layers with a thickness of 0.2-1 mm. The polymer material may also be applied in several layers, e.g. on top of each other in an overlapping fashion. Thus, the polymer material can be sprayed on and adjusted to the respective requirements on the overall thickness of the polymer material"*. The last sentence does not refer to the thickness 0.2-1 mm but to the respective requirements of the overall thickness, without defining what these requirements are.

Similarly, paragraph [0062] reads *"in various embodiments, the polymer is applied in at least one layer with a thickness of 0.2-1 mm. It can be applied in one or several layers, whereby the layers can be of different thickness"*.

Feature d3 does not therefore limit the overall thickness of the polymer material applied and cannot justify a technical effect over the whole scope of the claim.

However even considering that the thickness defined in feature d3 is the overall thickness of the applied polymer material, the claimed effect is not achieved over the whole scope of claim 1.

The Board notes that the subject-matter of claim 1 is very broad. Neither the type of knitted fabric nor the polymer material is further defined.

The alleged effect, namely to reduce the greater flexibility and stretchability of the knitted fabric, cannot be achieved for any polymer material (thermoplastics, thermosets and elastomers) and for any form of application (foam, non-woven fabric etc...). This is especially the case as the knitted fabric is not further defined either. A knitted fabric may be made of very different yarns and have very different properties in terms of elasticity depending on the type used as mentioned in paragraph [36] of the patent:
"Knitted fabrics constitute the majority of textile materials used for shoes. An essential advantage of knitted fabric over woven textiles is the variety of structures and surfaces which can be created with it. Using essentially the same manufacturing technique, it is possible to manufacture both, very heavy and stiff materials and very soft, transparent and stretchable materials. The properties of the material can be influenced by the weft-knitting pattern, the yarn and the needle size".

To solve the alleged technical problem, the polymer coating should have a flexibility and stretchability that is less than the knitted fabric. Indeed, as neither the resulting flexibility and stretchability of the shoe upper, nor the one of the individual layers

nor the reduction is quantified, this would be the only requirement for the two layers.

However, if for example the knitted fabric is very heavy and stiff as mentioned in paragraph [0036] of the patent and the polymer is an elastomer with a thickness between 0.2-1 mm, there will be no reduction of the flexibility and stretchability of the knitted fabric.

The problem to be solved is therefore to be regarded as the provision of a shoe upper with an alternative flexibility and stretchability.

The mere arbitrary choice of a thickness for the polymer material from all the possible solutions to achieve any kind of stretchability or elasticity of the shoe upper cannot involve an inventive step.

7. Auxiliary request 4 - inventive step over D2 - Article 56 EPC

The subject-matter of auxiliary request 4 does not involve an inventive step over D2.

Auxiliary request 4 corresponds to the main request with the addition of feature d4 reading:

"wherein the polymer material is applied to the shoe upper in a liquid state".

7.1 Appellant 1 argued that the additional feature together with feature a led to a synergistic effect over D2, namely, to provide the necessary reduction of improved stretchability of a knitted fabric in a speeded-up coating process (s. opposed patent, paragraph [0015]) so that there was no "aggregation or juxtaposition of features".

The polymer material for the coating may be better soaked by the upper so that the necessary reduction of stretchability of the fabric may be provided but the required elasticity of the fabric was maintained (see opposed patent, paragraph [0015], [0058]) so that the objective technical problem could be seen as improving the process for better coating.

In their letter of 13 January 2023, appellant 1 argued that the skilled person understood with the additional feature d4 of auxiliary request 4 in view of paragraphs [0058], [0059], [0060] and [0061] of the patent that the polymer material may be applied by dipping the textile material in a liquid polymer solution, which was made to soak through the textile material and the textile material with soaked-in polymer was dried with heat. Therefore, the skilled person further understood that there were differences between a product where the polymer material was applied to the shoe upper in a liquid state and a product where the polymer material was heat pressed like in D1, D2 or D7.

During oral proceedings appellant 1 argued that the skilled person understood with the additional feature d4 of auxiliary request 4 in view of paragraph [0057] of the patent that the polymer material may be applied by spraying which could be automatically performed.

- 7.2 The Board cannot follow the arguments of appellant 1. The added feature d4 does not have a technical effect over the whole scope of claim 1. Feature d4 defines that the polymer material is applied to the shoe upper in a liquid state, but does not specify the way it is applied, whether the polymer material is applied by spraying, printing, dipping... And while these types of

applications are usually automated, claim 1 does not specify it. So the alleged improved manufacturing (increased speed, precision and reproducibility) cannot be acknowledged.

The Board further notes that while the manufacturing improvements may be an effect associated to the method of manufacturing the shoe upper (claim 10), it cannot be associated to the product claimed as the application of the polymer material and whether the application has been automated will not be recognisable in the end product.

Moreover, the application of the polymer in a liquid state without specifying the type and the form of the polymer material cannot have the alleged effect especially as the knitted fabric in feature a is not further defined. Without further defining the knitted fabric and the polymer material, the polymer material could be more stretchable than the knitted fabric, which would not result in the alleged effect.

Therefore, the problem to be solved is to be regarded as the provision of a shoe upper with an alternative flexibility and stretchability.

The mere arbitrary choice of the application of the polymer material in liquid form from all the possible solutions to achieve any kind of stretchability or elasticity cannot involve an inventive step.

8. Auxiliary request 5

The subject-matter of auxiliary request 5 does not involve an inventive step over D2.

Auxiliary request 5 corresponds to the main request with the addition of feature d5 reading:

"wherein the applied polymer material has a hardness in the range of 40-60 shore D".

- 8.1 Appellant 1 was of the opinion that the additional feature d5 together with feature a led to a synergistic effect over D2, namely to further improve the shoe upper production speed and reproducibly with necessary reduction of stretchability and at the same time maintaining a required elasticity (s. opposed patent, paragraph [0015], [0003]) so that there was no "aggregation or juxtaposition of features".

In their view, the skilled person could derive directly and unambiguously from paragraph [0015] of the opposed patent the technical effect of the additional feature d5 alone, namely, to provide a necessary reduction of stretchability and at the same time maintaining a required elasticity of the knitted fabric, albeit to a lesser extent than without the disclosed viscosity range. For example, paragraphs [0071] and [0072] of the opposed patent showed the skilled person that these features were not related or inextricably linked to each other.

The missing features were not part of the common general knowledge and were not described in combination in any of the prior art cited. The subject-matter of claim 1 involved therefore an inventive step over D2.

- 8.2 The Board does not agree. The added feature defines a range for the hardness of the applied polymer neither specifying the nature nor the form of the polymer material. Specifying the hardness of the polymer material alone cannot have the alleged effect over the

whole scope of claim 1 especially as the knitted fabric is not further specified in claim 1.

The problem to be solved is therefore to be regarded as the provision of a shoe upper with an alternative flexibility and stretchability.

The mere arbitrary choice of hardness range for the polymer material from all the possible solutions to achieve any kind of stretchability or elasticity of the shoe upper cannot involve an inventive step.

9. Auxiliary request 6

The subject-matter of auxiliary request 6 does not involve an inventive step over D2.

Auxiliary request 6 corresponds to the main request with the addition of feature d6 reading:

"the polymer material is sprayed on".

9.1 Appellant 1 argued that the description of the opposed patent explained prominently many times that the advantageous technical effect of spraying on (as the most important method of applying) is that it may be automatically performed so that the shoe upper production may be carried out fast and reproducibly (paragraphs [0057] and [0058] of the patent). Coating with a scraper or coating knife and laying on were not mentioned in this context.

Moreover, spraying on the polymer material for the polymer coating enabled the polymer material to be evenly applied in thinner layers than the other application techniques (s. penultimate sentence in paragraph [0056]) so that the stretchability of the

final coated knitted shoe upper was improved. In this way, the additional feature d6 provided the technical properties imparted to the product by the process.

The objective technical problem underlying the present invention could be formulated as providing a knitted shoe upper, which could be produced in a fast and reproducible manner.

The skilled person did not have any incentive or motivation to solve the problem of improving the shoe upper known from D2.

9.2 The Board does not agree for similar reasons as for auxiliary request 4:

- Claim 1 does not specify that the process feature added, "sprayed on" is automated.
- The process feature added is not recognisable in the end product.
- The knitted fabric as well as the polymer coating are not further defined.

Consequently, the claimed technical effect is not achieved over the whole scope of claim 1.

The problem to be solved is therefore to be regarded as the provision of a shoe upper with an alternative flexibility and stretchability.

The mere arbitrary choice of the application of the polymer material by spraying from all the possible solutions to achieve any kind of stretchability or elasticity of the shoe upper cannot involve an inventive step.

10. Auxiliary request 6a - Admissibility pursuant Article 13(2) RPBA 2020

Auxiliary request 6a was not admitted into the proceedings.

Auxiliary request 6a corresponds to auxiliary request 6 with the amendment of feature D6 as follows:

"the polymer material is sprayed on in an automated process with a robot".

Appellant 1 filed auxiliary request 6a with his letter of 13 January 2023 after notification of a summons to oral proceedings.

- 10.1 Appellant 1 argued that this request was a direct reaction to the new discussion of an advantageous technical effect as set out in the last passage of sec. no. 9.3 of the preliminary opinion of the Board. Therefore, appellant 1 could not file auxiliary 6a in the first instance or with the statement of grounds of appeal.
- 10.2 Pursuant Article 13(2) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

In the present case, no exceptional circumstances justified the admission of auxiliary request 6a. The primary purpose of a Board's preliminary opinion was to establish the framework of the appointed oral proceedings, i.e., to prepare the oral proceedings, and was not an invitation to a party to file further requests.

Furthermore, the amendments made to claim 1 did not prima facie overcome the lack of inventive step over

D2. Whether the spraying is automated with a robot or not, does not add any limitation to the end shoe upper claimed. Indeed the added feature will not be necessarily recognizable in the end product.

11. Auxiliary request 7

Auxiliary request 7 does not involve an inventive step starting from D2.

Claim 1 of auxiliary request 7 corresponds to claim 1 of the main request with the addition of features d7, e7 and f7 reading:

"d. wherein the polymer material is applied to the shoe upper in a liquid state;

e. wherein the applied polymer material has a hardness in the range of 40-60 shore D; and

f. wherein the applied polymer material has a viscosity in the range of 15-80 Pa.s at 90-150°C".

11.1 Appellant 1 was of the opinion that features d7, e7 and f7 together with the knitted fabric led to a synergistic effect over D2, namely to further improve the shoe upper production speed and reproducibly with necessary reduction of stretchability and at the same time maintaining a required elasticity, wherein the polymer material may be evenly applied in thin layers (s. opposed patent, paragraph [0056], [0015], [0003]) so that there was no "aggregation or juxtaposition of features".

Sufficient evidence to support the comparison with the prior art was provided and mentioning specific numeric values for the reduced stretchability and the required elasticity was not necessary. Therefore, the skilled person did not have any incentive or motivation to

solve the problem of improving the shoe upper known from D2.

The skilled person found no hint to combine any of the prior art document because the documents were directed to different shoe upper materials and configurations so that they were not compatible without substantial modifications.

- 11.2 As mentioned for auxiliary requests 3, 4 and 5, features d7, e7 and f7 individually do not contribute to an inventive step. The Board judges that the combination of features d7, e7 and f7 does not contribute to an inventive step either. Feature d7 is a process feature and features e7 and f7 are intrinsic features of the applied polymer and limit the type of polymer to be chosen. While the choice for the polymer material is more limited as the viscosity and the hardness are required to be in the range defined in claim 1, there is still no indication that such a polymer, which will be applied in liquid state will be more stretchable than the knitted fabric, as the knitted fabric can be of any type (reference is made to paragraph [0036] of the patent). The Board notes also that the quantity of polymer material applied to the knitted fabric is not defined in claim 1.

The burden of proof of the presence of an effect over the whole scope of claim 1 rests on appellant 1, alleging the effect. The mere sentence in paragraph [0015] referring to the 3 added features: *"These values provide the necessary reduction of stretchability of the knitted fabric but maintain the required elasticity of the knitted fabric"* is not enough to prove the alleged effect as not a single measurement of the

flexibility and the stretchability of the shoe upper as a whole or of the individual layers is provided.

The problem to be solved is therefore to be regarded as the provision of a shoe upper with an alternative flexibility and stretchability.

The mere arbitrary choice of the viscosity and the hardness of the polymer material applied in a liquid state from all the possible solutions to achieve any kind of stretchability or elasticity of the shoe upper cannot involve an inventive step.

12. To conclude, none of the admitted auxiliary requests are allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



A. Vottner

G. Pricolo

Decision electronically authenticated