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**Datasheet for the decision
of 5 March 2025**

Case Number: T 1883/22 - 3.2.01

Application Number: 16165059.3

Publication Number: 3081109

IPC: A43B1/00, A43B1/14, A43B3/00,
A43B13/12

Language of the proceedings: EN

Title of invention:
SPORTS SHOE

Patent Proprietor:
adidas AG

Opponent:
On Clouds GmbH

Headword:

Relevant legal provisions:
EPC Art. 52(1), 54, 56
RPBA 2020 Art. 13(2)

Keyword:

Novelty - main request (no) - auxiliary request (yes)
Inventive step - auxiliary request (yes)
Amendment after summons - exceptional circumstances (no) -
taken into account (no) - cogent reasons (no)

Decisions cited:

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 1883/22 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 5 March 2025

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
3 June 2022 concerning maintenance of the
European Patent No. 3081109 in amended form.**

Composition of the Board:

Chairman G. Pricolo
Members: V. Vinci
O. Loizou

Summary of Facts and Submissions

I. The appeals of the patent proprietor and the opponent lie against the interlocutory decision of the Opposition Division to maintain the European patent No. 3 081 109 in amended form.

In its decision, the opposition division found that the ground for opposition raised by the appellant (opponent) under Article 100(a) in association with Article 54 EPC was prejudicial to the maintenance of the patent as granted and decided to maintain the patent in amended form on the basis of the set of claims of the auxiliary request I filed on 24 September 2021. In the decision under appeal, novelty and inventive step within the meaning of Articles 52(1), 54 and 56 EPC were assessed, among others, in view of the following prior-art documents:

D1: WO2010/090923 A2
D6: US 2011/0252668 A1
D7: US 2013/0255103 A1

With their statement of grounds of appeal the appellant (opponent) cited - among other - the following non-patent literature:

D27: Polyurethanes Science, Technology, Markets and Trends, S. 300 ff;
D28: *"Improving shoe performance and increasing automation in footwear production with new TPU foam "* - 7 Conclusion.
D29: US-A-7 086 179
D30: «Nähgarn» www.kurzwarenland.de/Nählexikon/Nähgarn in the Version of 30 March 2015;

D31: Wikipedia entry dated 9 March 2015 relating to the meaning of the German term "*Garn*"; and

D32: Wikipedia entry dated 7 April 2015 relating to the meaning of the German term "*Monofil*"

D33: US2007/0271821

- II. With a communication in accordance with Article 15(1) RPBA dated 21 October 2024, the Board informed the parties of its preliminary assessment of the case.

Oral proceedings took place before the Board on 5 March 2025 by videoconference.

- III. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or, in the alternative, that the patent be maintained in amended form according to one of the auxiliary requests I to XIV and Ia to VIIa filed with the reply, wherein auxiliary request I corresponds to the version of the patent as maintained by the opposition division.

- IV. The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked.

- V. Independent product claim 1 as granted reads as follows (labelling of the features according to the appealed decision):

1.1 *"Shoe, in particular sports shoe, comprising:*

1.2 *an upper (120), wherein a majority by weight of the upper is made from a thermoplastic base material;*

1.3 *a sole (110), wherein a majority by weight of the sole is made from the same thermoplastic base material;*

1.4 wherein the sole (110) and the upper (120) are individually fabricated and joined to each other;

1.5 wherein the thermoplastic base material is selected from one of the following materials: thermoplastic polyurethane TPU, polyamide PA, polyethylene terephthalate PET, or polybutylene terephthalate PBT; and

1.6 wherein the sole (110) comprises an outsole (112) comprising the thermoplastic base material."

Independent product claim 1 of the patent in the version maintained by the opposition division recites the following additional feature:

1.7 "wherein the upper (120) comprises a textile material, which comprises a yarn comprising the thermoplastic base material"

Independent method claims 12 and 10 of the patent as granted and as maintained by the opposition division, respectively, relate to a method for manufacturing a shoe. They recite the same features of the corresponding independent product claim 1 here expressed in terms of manufacturing steps.

Method claims 15 and 13 of the patent as granted and as maintained, respectively, include the subject-matter of the corresponding independent product claims.

Reasons for the Decision

APPEAL OF THE PATENT PROPRIETOR - MAIN REQUEST- PATENT AS GRANTED

Articles 52(1) and 54 EPC - Lack of Novelty

1. The subject-matter of independent claims 1 and 12 of the patent as granted lacks novelty within the meaning of Articles 52(1) and 54 EPC as correctly concluded by the opposition division in the decision under appeal.
 - 1.1 With their appeal, the appellant (patent proprietor) contested the conclusion of the opposition division that document D6 was prejudicial to novelty of the subject-matter of independent claims 1 and 12 as granted.

Novelty over D6

- 1.2 Regarding the only objection of lack of novelty over D6 raised by the appellant (opponent), the parties relied at the oral proceedings on the arguments presented in writing and did not wish to make any further submission. Consequently, the Board has no reason to deviate from the assessment of this objection presented in its preliminary opinion dated 21 October 2024 which is hereby confirmed and reads as follows:
 - 1.3 The appellant (patent proprietor) alleged that the opposition division applied an erroneous legal standard and an incorrect understanding of the claimed subject-matter to arrive at the finding that the sport shoe disclosed in D6 comprised all features 1.1 to 1.6 of independent product claim 1 as well as the

corresponding manufacturing steps defined in independent method claim 12 as granted. The appellant (patent proprietor) put forward that the findings of the opposition division regarding lack of novelty over D6 were based on an incorrect reading of the features of claims 1 and 12 in this prior art document which was not justified by the technical information that a skilled person could implicitly and unambiguously derive therefrom. In their view, the alleged reading of the combination of features 1.2 to 1.6 and 12.2 to 12.8 in D6 was not the inevitable and univocal result of the information actually presented since further and equally plausible alternatives could be envisaged by the person skilled in the art when confronted with the disclosure of this prior art document. Furthermore, the appellant (patent proprietor) argued that the objection of lack of novelty over D6 raised by the opposition division was based on a triple selection from a list of alternative materials which were suggested for the upper, the sole and the outsole the sport shoe disclosed in the prior art document. The fact that such a triple selection was required clearly demonstrated that document D6 was not prejudicial to novelty of the independent claims 1 and 12.

- 1.4 The Board does not follow the arguments of the appellant (patent proprietor) and confirms the assessment of the opposition division that independent claims 1 and 12 as granted lack novelty over D6. In the following the features of independent product claim 1 as granted will be discussed. The same reasoning and conclusions analogously apply to the subject-matter of independent method claim 12 which contains the corresponding method features.

Features 1.1, 1.2, 1.3 and 1.5 in D6

1.5 It is undisputed that D6 discloses a sport shoe, in particular a sport shoe according to feature 1.1 (see paragraph [0001] and Figures 1 and 2. Since the first sentence of paragraph [0029] of this prior art document explicitly refers to "*the soccer shoe of the present invention*", the teaching presented in this passage is applicable to all the embodiments of the shoe described in this piece of prior art. According to paragraph [0029], the upper (1), the sole (2) and the cleats (3) of the soccer shoe are all manufactured from a thermoplastic polyurethane (in the following TPU) or from a polyurethane (in the following PU). This information is confirmed by dependent claim 7. It is also uncontested that the cleats (3) correspond to the "*outsole (112)*" recited in claim 1. The Board concurs that it may be questionable whether the word "*all*" in the first sentence of paragraph [0029] directly and unambiguously implies for the skilled reader that all these three components of this known soccer shoe are made of the same, i.e. identical, thermoplastic base material, be this TPU or PU. In any event, since only two alternatives of suitable thermoplastic base material to be used to manufacture the upper of the soccer shoe of D6 are suggested, the Board takes the view that a soccer shoe comprising an upper made of TPU, which is the first of the two alternatives explicitly described in paragraph [0029], is directly and unambiguously derivable from this prior art document. Contrary to the appellant's (patent proprietor's) allegation, this specific disclosure is not the result of an arbitrary selection from a list of a certain length which - for being such - must inherently contain more than 2 elements. This is not the case here. Furthermore, preceding paragraph [0016]

of D6 explicitly discloses an embodiment according to which the upper (1) and the sole (2) are made of the same material. This can be directly and unambiguously inferred from the sentence reading "Accordingly although the same material is adopted for manufacturing the upper (1) and sole (2)" (emphasis added). The fact that according to the same paragraph different additives can be added to the same thermoplastic base material of the upper and the sole to achieve different mechanical properties does not change anything in the conclusion that according to D6 the same thermoplastic base material is used for this two elements of the soccer shoe. Therefore, the Board follows the conclusion of the opposition division supported by the appellant (opponent) that a soccer shoe having the upper and the sole both made of TPU is directly and unambiguously disclosed in D6. This is indeed one of the only two disclosed embodiments that a person skilled in the art directly and unambiguously derives when reading paragraph [0016] of D6 in the light of the information presented in paragraph [0029].

- 1.6 The appellant (patent proprietor) disputed that document D6 directly and unambiguously discloses the further limitation introduced by features 1.2 and 1.3 of claim 1 as granted that the majority by weight of the upper and the sole was made of TPU. In this respect they referred to Figure 3 and pointed out that the upper and the sole of the soccer shoe according to D6 comprised a lining (4) and an insole (5) respectively which - in their view - also contributed to the total weight of these upper (1) and the sole (3). In support of this allegation, it was argued that since no details were given regarding the kind of material and weight of the lining (4) and the insole (5) it was not possible to draw any conclusion regarding whether the majority

by weight of the upper and the sole was made from the same thermoplastic base material, namely from TPU, as additionally required by features 1.2 and 1.3 read together with feature 1.5 of independent claim 1 as granted.

- 1.7 However, the Board agrees with the interpretation of the opposition division and the appellant (opponent) that the lining (4) and the insole (5) must be considered as individual elements of the shoe of D6 rather than as integrals parts of the upper (1) and the sole (2). Therefore, they do not contribute to the total weight of the upper (1) and the sole (2) in themselves. As convincingly pointed out by the appellant (opponent), this interpretation is supported by paragraph [0024] and Figure 3 of D6 which describe and show the lining (4) and the insole (5) as individual elements realized separate from the upper (1) and the sole (2). Furthermore, the fact that the lining (4) and the insole (5) are claimed in dependent claims 8 and 9 of D6 confirms for the skilled reader that they are preferred/optional features of the shoe of D6 and thus distinguished from the upper (1) and the sole (2). In view of this interpretation of the technical content of D6, it follows that the majority by weight of the upper and the sole is made from the thermoplastic base material, namely of TPU, because - as it is well known - the additives added according to paragraph [0016] to the base material of these components of the soccer shoe, as such, have necessarily a percentage by weight which is much less than that of the respective thermoplastic base material to which they are added. In conclusion document D6 discloses a sport shoe comprising features 1.2, 1.3 and 1.5 of claim 1 as granted in combination.

Disclosure of feature 1.4 in D6

- 1.8 The Board shares the view of the appellant (opponent) that feature 1.4 of independent claim 1 as granted is formulated as a method feature. Therefore, it is at least questionable whether it can clearly limit the subject-matter of independent product claim 1 as granted with respect to any prior art sport shoe and in particular with respect to the finished sport shoe disclosed in D6 as instead alleged by the appellant (patent proprietor). In any event, this feature merely requires that the sole and the upper are "*individually fabricated and joined to each other*". In accordance with the interpretation adopted by the appellant (opponent), the Board reads the term "*individually fabricated*" as meaning either (1) timely individually fabricated or (2) physically individually fabricated or both. Furthermore, as convincingly pointed out by the appellant (opponent), the wording of feature 1.4 does not imply that the upper and the sole of the shoe according to claim 1 as granted, after having been separately manufactured, exist as two individual components. That said, the two-step injection procedure described in paragraphs [0017] and [0018] of D6 fulfils feature 1.4 of independent claim 1 as granted. In fact, according to this passage, during a first step only the sole is fabricated by injection molding, while, in a subsequent step, the upper is molded in a different mold where it is connected at the same time to the sole previously molded located therein. The fact that the sole is inserted into the mold used to fabricate the upper does not change that according to D6 these components are fabricated one after the other and hence individually. Therefore, also feature 1.4 of

independent claim 1 as granted is directly and unambiguously derivable from D6 in combination with features 1.2, 1.3 and 1.5.

Disclosure of feature 1.6 in D6

- 1.9 It is undisputed that the shoe according to the embodiment of paragraph [0016] also comprises an outsole represented by the cleats (3) shown in Figures 2 and 3. In view of the wording of paragraph [0029] teaching that the upper (1), the sole (2) and the cleats (3) of the soccer shoe are all manufactured of TPU or PU (emphasis added), the skilled reader understands that all these three elements are made of the same material, be this TPU or PU. This means that if the upper and the sole are both made of TPU, which is considered - as explained above - an explicit disclosed embodiment in view of the fact that only two alternatives are proposed, the person skilled in the art will follow this choice also for the thermoplastic base material used to form the the outsole.

Alleged multiple selection from lists

- 1.10 Even following the view of the appellant (patent proprietor) that the teaching to manufacture also the outsole from TPU is not directly and unambiguously implied by paragraph [0029] because in their view D6 this passage leaves open whether the material of the outsole is identical to the material of the upper and the sole (which according to paragraph [0016] is the same) or not, the Board cannot see why in order to arrive to the disclosure of the subject-matter of claim 1 an arbitrary triple selection is required. At the most, a double selection from a single list containing only 2 alternatives is required, namely the selection

of TPU as common material for the upper and the sole and the selection of TPU from the same list (instead of PU) for the outsole. As a matter of fact, there are in total only four possible combinations resulting from the disclosure of D6, namely (1) the upper and the sole made of TPU with the outsole also made of TPU, (2) the upper and the sole made of TPU with outsole made of PU, (3) the upper and the sole made of PU with the outsole made of TPU, and (4) the upper and the sole made of PU with the insole also made of PU. The Board is convinced that - due to the very small number of possible combinations disclosed - any one of them has to be considered directly and unambiguously presented to the person skilled in the art reading D6 in the light of common general knowledge. Therefore, the Board cannot follow the allegation of the appellant (patent proprietor) that the opposition division applied an erroneous legal standard when determining the implicit disclosure of D6, i.e. a triple selection from a list of alternatives.

- 1.11 In view of all above, the Board confirms the assessment of the opposition division that a shoe according to features 1.1 to 1.6 in combination is directly and unambiguously disclosed in D6, whereby the subject-matter of independent claim 1 as granted lacks novelty over this prior art document. The same conclusion applies for the same reasons to the subject-matter of independent method claim 12 as granted.

2. Since auxiliary request I submitted with the statement of grounds of appeal corresponds to the version of the patent as maintained by the opposition division, the appeal of the appellant (patent proprietor) has to be dismissed.

APPEAL OF THE OPPONENT - PATENT AS MAINTAINED

3. The appeal of the appellant (opponent) is directed against the interlocutory decision of the opposition division maintaining the patent in amended form according to the auxiliary request I.

3.1 Compared with independent claims 1 and 12 as granted, independent claims 1 and 10 of this auxiliary request contain an identical additional feature labelled 1.7 and 10.7 respectively which reads:

"...wherein the upper (120) comprises a textile material, which comprises a yarn comprising the thermoplastic base material."

3.2 With their statement of grounds of appeal the appellant (opponent) objected that the subject-matter of independent claims 1 and 10 of the patent as maintained lacked novelty over documents D1 and D7. In this context documents D29 and D30 incorporated by reference in D1 were cited. They also contested the conclusion of the opposition division that the subject-matter of these independent claims involved an inventive step over the prior art within the meaning of Articles 52(1) and 56 EPC. The appellant (patent proprietor) questioned the admissibility of these novelty attacks into the appeal proceedings arguing that they had been submitted for the first time with the statement of grounds of appeal of the appellant (opponent) without any convincing justification and put forward that, in any event, they were not justified in the substance. The same applied to the new inventive step attack starting from D7 as closest prior art submitted by the appellant (opponent) with letter dated 9 December 2024.

Articles 52(1) and 54 EPC - Lack of Novelty

4. The subject-matter of independent claims 1 and 10 of the patent in the version maintained by the opposition division is novel within the meaning of Articles 52(1) and 54 EPC.

4.1 In the following paragraphs reference is made to the features of the independent product claim 1 as maintained. However, as for the claims as granted, the same reasoning and conclusions analogously apply to the corresponding features of independent method claim 10.

4.2 The Board is of the opinion that the question of the admittance into the appeal proceedings of the novelty attacks based on D1 and D7 as well of documents D29 and D30 and certain allegedly new lines of arguments raised by the appellant (opponent) can be left aside because in any event these objections cannot convince in substance for the reasons that will be presented below.

Novelty over D1

4.3 The appellant (opponent) held that contrary to the conclusions of the decision under appeal regarding lack of novelty of the main request in view of D1 which - as far features 1.1 to 1.6 are concerned - analogously apply to auxiliary request I, feature 1.5 was disclosed in this prior art document in combination with the remaining features of claim 1 as maintained. Conversely, the appellant (patent proprietor) put forward that beside the distinguishing feature 1.5 correctly assessed by the opposition division, D1 failed to disclose features 1.2, 1.3, 1.6 and 1.7 of

independent claim 1 in combination.

- 4.4 The appellant (opponent) pointed out that D1 described in paragraphs [0156] and following a footwear (400) shown for example in Figures 39A and 40A with an upper (420), a sole (410) and an outsole (413) that according to paragraph [00159] were individually fabricated and jointed to each other according to features 1.4 of claim 1. This assumption was not contested by the appellant (patent proprietor). The appellant (opponent) argued that from paragraphs [0159] and [0160] the skilled reader also derived that the upper (420), the sole (410) and the outsole (413) of the footwear (400) were all formed from a thermoplastic polymer material consisting of a *"non-woven textile (100)"* formed by a plurality of filaments (103) as generally described in paragraphs [0060] to [0064]. Paragraph [0060] confirmed that the non-woven textile (100) was suitable for use in a footwear. The appellant (opponent) put forward that from the last sentence of paragraph [00160] stating that *"Accordingly, a majority or even all of footwear 400 may be formed from one or more thermoplastic polymer materials."* (emphasis added) the person skilled in the art also directly and unambiguously derived an embodiment of the footwear (400) according to which the upper (420), the sole (410) and the outsole (413) of the footwear (400) were all made of one and the same thermoplastic polymer material, namely non-woven textile (100). Contrary to the view expressed by the appellant (patent proprietor), this interpretation of the last sentence of paragraph [0160] was not in contradiction with the information presented in the preceding sentences of the same paragraphs. In their view, the teaching that the upper, the sole and the outsole of the footwear disclosed in D1 were made of one and the same

thermoplastic base material was also supported by paragraph [0188] emphasizing that reducing the number of materials used to manufacture a footwear allowed for an efficient recycling. The appellant (opponent) thus concluded that features 1.1, 1.2, 1.3, 1.4 and 1.6 of claim 1 as maintained were thus disclosed in combination in D1. Furthermore, the appellant (opponent) referred to paragraph [0064], page 11, lines 3 to 8 of D1 that listed five thermoplastic polymer materials suitable for manufacturing the filaments (103) of non-woven textile (100) but clearly indicated that TPU was the preferred one. In the appellant's (opponent's view), this represented an implicit disclosure that the thermoplastic polymer material of the filaments (103) of the non-woven textile material (100) used to manufacture the upper (420), the sole (410) and the outsole (413) of the footwear (400) of D1 was a TPU as required by feature 1.5 of claim 1. Contrary to the view of the opposition division, no selection from a list was required because of the above mentioned clear indication of TPU as preferred material for the filaments (103). The appellant also referred to document D29 cited in paragraph [0157] and incorporated by reference in D1 regarding the sole (410) allegedly disclosing in column 7, line 39 and following a sole structure made of polyurethane with a chamber made of TPU. The admissibility of D29 into the appeal proceedings was contested by the appellant (patent proprietor). Regarding the remaining feature 1.7, the appellant (opponent) acknowledged the paragraph [0002] of D1 differentiated between mechanically-manipulated textiles or non-woven textiles. However, contrary to the assessment of the opposition division, it could not be assumed from this passage that non-woven textile could not comprise yarns and this because also a single filament could be seen as a yarn. In support of this

interpretation of the term "yarn" the appellant (opponent) referred to the non-patent literature D30 to D32, the admissibility of which was contested by the appellant (patent proprietor), allegedly demonstrating that a person skilled in the art was aware that a yarn could in principle consist of a single filament (see in particular Wikipedia's entry D31). A broad reading of the term "yarn" in the sense to also encompass a single filament was also justified by the fact that only the material of the yarn, but not its length, thickness or structure were defined in claim 1. In this respect it was pointed out that according to paragraph [0063] of D1 the term "*filament*" within the technical context of this prior art document encompassed elements of any length. Based on this allegedly justified broad reading of the term "yarn" and on the indication in paragraph [0064] of TPU as preferred thermoplastic material for the filaments (103) of the non-woven textile material (100) of which the upper (420) of the footwear (400) was made, the appellant (opponent) concluded that feature 1.7 was directly and unambiguously disclosed in D1. It was further put forward that even following the assumption of the opposition division that the non-woven textile material (100) did not comprise yarns but rather filaments, feature 1.7 was still disclosed in D1. In this respect the appellant (opponent) explained that Figures 14 and 15 in combination with paragraphs [0105], [0106], [0135] and [0164] of D1 disclosed that the non-woven textile material (100) could be combined with a mechanically-manipulated textile (130) comprising yarns (131) made of thermoplastic material which can be used for manufacturing the footwear (400) and hence, in particular the upper (420). Further, the appellant (opponent) referred to the embodiment of the footwear (400) depicted in Figures 39D and 40D and described in

paragraph [0165] of D1 according to which "*strands (160)*" embedded in the non-woven textile (100) of the upper which according to paragraph [0114] could be yarns of thread including yarns. Finally, regarding the structure of the strands (160), the appellant (opponent) mentioned document D33 referred to in paragraph [0166] and incorporated by reference in D1, wherein in paragraph [0043] it was confirmed that the strands in a footwear could comprises yarns. Also the admissibility of D30 into the appeal proceedings was also contested by the appellant (patent proprietor). The appellant (opponent) concluded that in view of the teachings of paragraph [0160] and [0064] that all the elements of the footwear (400) were made of the same thermoplastic material, preferably of TPU, also feature 1.7 of claim 1 of the patent as maintained was also fulfilled by D1. The same reasoning and conclusions applied to the subject-matter of method claim 10.

- 4.5 The submissions of the appellant (opponent) regarding lack of novelty over D1 are not convincing for the following reasons:

Features 1.2, 1.3 and 1.6

- 4.6 The Board concurs with the appellant (patent proprietor) that the person skilled in the art understands from the first part of paragraph paragraph [00160] up to last full line on page 58 of D1 that - at the most - individual components of footwear 400 may each be formed from a thermoplastic material, whereby a large percentage or even the entire footwear 400 consists of a mixture of various thermoplastic materials. The Board also shares the view of the appellant (patent proprietor) that the opposition division when assessing the disclosure in D1 of the

corresponding features 1.2, 1.3 and 1.6 of claim 1 as granted incorrectly disregarded the summarizing character of the word "Accordingly" and hence read the last sentence of paragraph [0160] bridging page 58 and 59 and cited by the appellant (opponent) in isolation from the preceding information, thereby coming to the wrong conclusion that this sentence directly and unambiguously taught that each component of the footwear (400) was made of one and the same thermoplastic base material. In the Board's view, the meaning of the wording of the last sentence of paragraph [01600] is not unambiguous to such an extent to univocally result in the interpretation adopted by the opposition division and suggested by the appellant (opponent). As put forward by the appellant (patent proprietor), this sentence may also mean that a majority (but not all) of the footwear (400) may be formed from one thermoplastic polymer material or that the whole footwear (400) may be formed from more thermoplastic polymer materials. The Board thus concludes that - contrary to the assessment of the opposition division - the last sentence of paragraph [0160] of D1 cannot be univocally read as meaning that all the components of the footwear (400) disclosed in this prior art document, in particular the upper (420), the sole (410) and the outsole (413), are made from one and the same thermoplastic base material. In this respect it is also observed that no other passage of D1 provides a clear and unambiguous support for such a narrow interpretation. Therefore the Board concludes that features 1.2, 1.3 and 1.6 are not directly and unambiguously disclosed in D1, thereby deviating from the assessment of the distinguishing features presented in respect of claim 1 as granted by the opposition division which also applies to claim 1 according to the auxiliary request I.

Feature 1.5

4.7 Paragraph [0064] discloses five alternatives of suitable thermoplastic polymer materials which according to D1 can be utilized for the fibers (103) of the non-woven textile material (100). Contrary to the allegation of the appellant (opponent), the fact that in the following lines of the same paragraph TPU is indicated as the preferred choice because it is relatively easy to bond with other elements and to be coloured, does not mean that there is a direct and unambiguously disclosed that this choice must be necessarily adopted by the person skilled in the art when they have to select the thermoplastic base material for manufacturing the upper (420), the sole (410) and the outsole (413) of the footwear (400), let alone when a single thermoplastic base material is used for all three components as required by claim 1. Therefore, since a selection from a list of five alternatives disclosed in D1 is required to fulfil feature 1.5 of claim 1 as granted, the teaching to manufacture the upper (420), the sole (410) and the outsole (413) of the footwear (400) from TPU is not directly and unambiguously disclosed in this prior art document as correctly concluded by the opposition division. Regarding the reference to document D29 the Board concurs with the arguments of the appellant (patent proprietor) that - irrespective of the admissibility issue - the cited passage does not provide any unambiguous evidence that the whole sole is manufactured of TPU, let alone that also the upper (420) and the outsole (413) are necessarily made of TPU.

Feature 1.7

4.8 The Board is not convinced that the person skilled in the art understands the term "yarn" as encompassing a fiber consisting of a single filament of any length. While the Wikipedia's entry (D31) relating to the German term "garn" seems to support the broad interpretation alleged by the appellant (opponent), no evidence has been filed as regards the meaning of the term "yarn" in English. Anyway, irrespective of the disputed meaning of the terms "yarn" and "filament" there is no indication in D1 that the material of the filaments (103) of the non-woven textile material (100) must be identical to the thermoplastic base material adopted for the upper (420), the sole (410) and the outsole (413), let alone that this material is a TPU as required by feature 1.7. The same arguments apply to the non-woven textile material (100) combined with a mechanically-manipulated textile (130) comprising yarns (131) shown in Figures 14 and 15 of D1 and to the strands (160) of the different embodiments of Figure 39D and 40D even in the light of the information provided in document D33 and the evidence cited in support of common general knowledge.

4.9 In view of all the above the Board concludes that document D1 does not directly and unambiguously disclose features 1.2, 1.3, 1.5, 1.6 and 1.7 of claim 1 as maintained. The same conclusion applies for the same reasons to the corresponding features of independent method claim 10.

Novelty over D7

4.10 The appellant (opponent) put forward similar arguments regarding the novelty attack based on D7. It was

pointed out that D7 described a yarn (100) made of filaments (101) of thermoplastic polymer material used - among others - to realize textiles (300, 400) utilized in the manufacture of a footwear (800) of the kind shown in Figures 49 and 50. In this respect reference was made to paragraphs [0001], [0071] [0080] [0083], [148], [149] of D7. The appellant (opponent) further referred to section "K" of D7 relating to the *"footwear configuration"*. According to this passage of D7 the footwear (800) included an upper (820), a sole (810) and an outsole (812) made of the polymer textile material (300,400) which in turn incorporated yarns (100) or threads (200) formed from a polymer material. The appellant (opponent) referred to paragraph [169] and noted that it was worded similarly to paragraph [0160] of D1 and contained the identical final sentence from which the appellant (opponent) analogously derived that the upper (8120), the sole (810) and the outsole (812) were made of one and the same thermoplastic polymer material, i.e. according to feature 1.2, 1.3 and 1.6 of claim 1 as maintained. The appellant (opponent) drew the attention to paragraph [0075] which - analogously to paragraph [0064] of D1 - listed five suitable thermoplastic polymer materials suitable for manufacturing the filaments (101) of the yarns (100) and indicated that TPU was the preferred one. For the same reasons presented in the context of the novelty attack based on D1, they concluded that the person skilled in the art directly and unambiguously derived to use TPU for the yarns (100) and the thread (200) forming the textile material (300,400) utilized to manufacture the upper (820) the sole (810) and the outsole (812) of the footwear (800). Therefore the appellant (opponent) concluded that that also feature 1.5 was directly and unambiguously disclosed in D7 in combination with features 1.2, 1.3, 1.4 (non disputed),

and 1.6 of independent claim 1 as maintained. Finally, the appellant (opponent) pointed out that since according to D7 the textile materials (300,400) of the footwear (800) were formed from yarns of thermoplastic polymer material and, for the reasons presented above, advantageously from TPU, also features 1.7 could be directly and unambiguously derived from this prior art document. The same reasoning and conclusions applied to the subject-matter of method claim 10 of the patent as maintained.

- 4.11 The submissions of the appellant (opponent) in support of the objection of lack of novelty over D7 are not convincing either:

The Board is of the opinion that features 1.2, 1.3, 1.5 and 1.6 of independent claim 1 as granted are not directly and unambiguously disclosed in D7 essentially for the same reasons presented under previous sections 4.6 and 4.7 and this essentially because the disclosure of these prior art documents regarding this features is very similar; see in particular paragraphs [64] and [160] of D1 and paragraphs [0075] and [00169] of D7. Regarding feature 1.7 the Board agrees with the appellant (opponent) that the upper (820) of the footwear (800) of D7 comprises a textile material (300,400) which comprise yarns (100). However, it cannot be directly and unambiguously derived that the yarns consist of the same thermoplastic base material as the upper, the sole and the outsole, let alone that this material is a TPU. Therefore, feature 1.7 is only in part disclosed in D7. The same conclusion applies for the same reasons to the corresponding features of independent method claim 10 as maintained.

5. In view of all the above, the Board concludes that the subject-matter of independent claims 1 and 10 of the patent in the version maintained by the opposition division is novel over D1 and D7 and this irrespective of the assessment of the question of the admissibility of these novelty attacks raised by the appellant (patent proprietor).

Articles 52(1) and 56 EPC - Inventive Step

6. The subject-matter of independent claims 1 and 10 of the patent in the version maintained by the opposition division involves an inventive step within the meaning of Articles 52(1) and 56 EPC as correctly concluded by the opposition division.

Inventive step attacks starting from D1

- 6.1 With their appeal, the appellant (opponent) contested the positive assessment of inventive step of the opposition division and put forward that the subject-matter of independent claims 1 and 10 of the patent as maintained was rendered obvious in view of D1 alone or in combination with common general knowledge substantiated by documents D27 and D28 or with D7. The appellant (patent proprietor) contested the admissibility of the inventive step attack based on D1 in combination with D7 and the admissibility of the non-patent literature D27 and D28 filed for the first time with the statements of grounds of appeal. However, these admissibility issues can be left aside because as it will be explained below none of the inventive step attacks starting from D1 are convincing.
- 6.2 As stated under point 4.8 above, the subject-matter of claims 1 of the patent as maintained differs from

document D1 in that the footwear according to this prior art document does not comprise features 1.2, 1.3, 1.5, 1.6 and 1.7 in combination.

6.3 The appellant (opponent) argued that since these distinguishing features addressed different technical problems, the assessment of inventive step had to be based on the so called "*partial problem*" approach. They put forward that features 1.2, 1.3 and 1.6 addressed the problem to facilitate material recycling. It was also pointed out that the patent did not present any particular technical effect associated with the selection of TPU for all the main components of the shoe and of the yarns of the upper sole. On the contrary, paragraph [0052], line 34-37 indicated that in principle any material could be used. Regarding feature 1.7, the appellant (opponent) observed that the provision of a yarn in the textile material of the upper could at the most achieve - as it was well known in the art - an improvement of the mechanical characteristics of this component of the footwear. However, since either the patent nor the claim indicated the number and the dimension of the yarns provided, it remained unclear whether this effect was achieved and to which extent and hence whether this technical problem was solved. Finally, the appellant (opponent) pointed out that no synergistic technical effect was achieved by the distinguishing features of claim 1 taken in combination which could be indicative of a presence of an inventive step. The appellant (opponent) essentially argued that the person skilled in the art was able to find already in D1 a clear hint to apply the teaching of features 1.2, 1.3, 1.5, 1.6 and 1.7 into the footwear (400) of this prior art document.

6.4 Regarding features 1.2, 1.3 and 1.6 (upper, sole and outsole made of the same thermoplastic base material), the appellant (opponent) argued that paragraph [0004] of D1 explicitly taught the person skilled in the art that reducing the number of materials utilized in a product decreased waste and increased manufacture efficiency and recyclability. This teaching which clearly belonged to common general knowledge was reiterated in paragraph [0188] which explicitly referred to the footwear (400). Therefore, the person skilled in the art was motivated by document D1 itself or common general knowledge to minimize the number of materials present in the footwear. There was no doubt that the person skilled in the art recognized that using a single material for all the components represented the most advantageous solution in respect of recyclability.

6.5 Regarding feature 1.5, the appellant (opponent) put forward that since paragraph [0064] expressed a clear preference for TPU as thermoplastic base material for the filaments of the non-woven polymer textile (100) compared to the other four alternative thermoplastic polymer materials listed in this passage of D1, the person skilled in the art would obviously consider to form the upper the sole and the outsole of the footwear disclosed in paragraphs [0157]-[0160] from the same non-woven polymer material comprising TPU filaments. The appellant (opponent) also pointed out that also D7 taught in paragraph [0075] to preferably use TPU for manufacturing the components of a footwear. Further this selection was obvious in the light of common technical knowledge as demonstrated by the non-patent literature D27 and D28.

- 6.6 Regarding feature 1.7 the appellant (opponent) pointed out that D1 itself taught in paragraph [106] that a composite material consisting of a non-woven textile (100) and a mechanically-manipulated textile (130) comprising yarns (131) made of thermoplastic material could be used for manufacturing the components of a footwear (400) and in particular the upper (420). The appellant (opponent) thus expressed the opinion that it was obvious for a person skilled in the art to use this composite material for the upper when it was required to enhance the mechanical characteristics of this component. Therefore, taking into account that in paragraph [0064] of D1 TPU was indicated as the preferred material to be selected to manufacture the components of the footwear and hence also the yarns (131), the introduction of feature 1.7 into the footwear of D1 did not result in any inventive contribution.
- 6.7 The appellant (patent proprietor) essentially replied that the patent - contrary to the allegation of the appellant (opponent) - addressed a single technical problem, namely to improve the footwear of D1 in terms of wearing comfort, mechanical performance/resistance and recyclability. This result was achieved by the features of claim 1 interacting synergistically in combination. They pointed out that the person skilled in the art found nowhere in D1 the teaching to form the upper, the sole, the outsole and the yarn of the textile material of the upper of the footwear (400) disclosed in D1 from one and the same thermoplastic base material, let alone from TPU. They also argued that the reference of the appellant (opponent) to the composite material of the embodiments disclosed in paragraph [0106] in combination with Figures 14 and 15 was a new argument which as such had to be disregarded.

In any event there was no indication that the yarns (131) of this composite material were formed from TPU. Regarding the combination of D1 with D7, the appellant (patent proprietor) objected that the footwear of D1 was formed from a non-woven polymer textile while the footwear of D7 was formed from a woven polymer textile whereby - irrespective of the admissibility issue - it was not obvious to combine these documents. Furthermore since none of these document disclosed features 1.2, 1.3, 1.5 and 1.7, their combination could not directly result in the subject-matter of claim 1. Finally, the appellant (patent proprietor) alleged that the submissions of the appellant (opponent) regarding lack of inventive step were based on unallowable hindsight. The parties extended these arguments to the subject-matter of independent method claim 10 as maintained.

6.8 The arguments of the appellant (opponent) regarding lack of inventive step are not convincing and this irrespective of the admissibility issues raised by the appellant (patent proprietor):

The Board concurs with the appellant (patent proprietor) that the reasoning of the appellant (opponent) goes beyond what the skilled person would have objectively inferred from cited prior art documents without the benefit of hindsight knowledge of the invention. This "*ex post facto*" approach cannot be adopted for correctly assessing inventive step. The Board shares the view of the appellant (opponent) that by considering the information presented in D1 (see in particular paragraphs [0004] and [0188]) and/or in the light of common general knowledge, the person skilled in the art aiming to decrease waste and increase manufacture efficiency and recyclability would be inclined to minimize the number of materials utilized

in a product. However, the Board is not convinced that the person skilled in the art would obviously go so far to adopt only one and the same material for the upper, the sole, the outsole and the yarns of the textile of the upper of the footwear (400) of D1. Against the obviousness of this choice speaks the fact that the person skilled in the art is also aware that the material of each component of a footwear should be appropriately selected according to the individual functional and mechanical requirements which vary from a component to another. Therefore, it is not obvious to consider that it is possible to achieve a satisfying compromise solution by using only one and the same thermoplastic base material for the main components of the footwear disclosed in D1. The Board also agrees with the appellant (opponent) that in view of paragraph [0064] of D1 or paragraph [0075] of D7 the person skilled in the art derives the general information that the use of TPU to realize a non-woven polymer textile (D1) or a woven polymer textile (D7) utilized for the manufacture of apparels or similar products is advantageous regarding its easy bonding properties and colourability in comparison with other thermoplastic materials. However, there is no hint in the cited prior art documents (D1, D7, D27 and D29) that TPU is also to be preferred when manufacturing footwear components, let alone when these components are all formed from one and the same thermoplastic material. In particular the cited prior art does not provide any hint that TPU represents a satisfactory compromise in view of the different functional and mechanical characteristics required by the different components of the shoe. Additionally, the Board notes that even assuming that the person skilled in the art in view of D1 itself, common general knowledge or D7 would consider to use a textile material comprising a yarn to form the upper,

there is no obvious indication that this material should be identical to the material of the upper, the sole and the outsole, let alone that this material must be TPU. In view of all above and irrespective of the assessment of the technical problem underlying the contested patent (partial problems, alternative shoe or improved shoe), the Board does not see any motivation for the person skilled in the art to implement features 1.2, 1.3, 1.5, and 1.7 into the footwear (400) disclosed in D1. The same conclusion applies for the same reasons to the assessment of inventive step of the subject-matter of claim 10 which recites the corresponding distinguishing method features.

Inventive Step Attack starting from D7

Admissibility

7. The appellant (opponent) submitted with their letter dated 9 December 2024 a new inventive step attack starting from document D7 and requested to admit it into the appeal proceedings. The admissibility of this new submission was contested by the appellant (patent proprietor) under Article 13(2) RPBA.
- 7.1 The Board observes that this new line of inventive step attack has been presented by the appellant (opponent) after receiving the communication issued by the Board according Article 15(1) RPBA. Its admittance is thus at the discretion of the Board which has to be exercised according to the strict conditions set forth in Article 13(2) RPBA.
- 7.2 Regarding the "*exceptional circumstances justified by cogent reasons*" within the meaning of Article 13 (2) RPBA the appellant argued as follows:

It was pointed out that documents D1 and D7 had a very similar technical content. Furthermore, the technical content of D7 had been dealt with in the decision under appeal in the context of the discussion of novelty of the main request and was extensively discussed in their statement of grounds of appeal. For these reasons this new line of inventive step attack was certainly not prejudicial to procedural economy. The appellant (opponent) also pointed out that that the positive assessment of inventive step starting from D1 presented by the Board in its preliminary opinion was essentially based on an alleged inventive contribution over this prior art document provided by the distinguishing feature 1.7 according to which the textile material of the upper disclosed in D1 comprised a yarn. Since this feature that the Board did not read in D1 was clearly disclosed in D7, this new relevant inventive step attack must be considered in order to avoid the maintenance of an invalid patent.

7.3 The justification provided by the appellant (opponent) are not convincing:

Firstly, the Board reminds the preliminary and non-exhaustive character of the assessment provided with the communication issued under Article 15(12) RPBA. The Board also notes that the relevance of feature 1.7 for the assessment of inventive step was discussed during the first instance oral proceedings (see point 22. of the minutes) and confirmed in the decision of the opposition division (see point 17.1). Furthermore, as correctly observed by the appellant (patent proprietor), document D7 was on file already during the examination proceedings, namely as document D3, and also from the beginning of the opposition proceedings.

Therefore, it is evident that starting from the date of filing of the auxiliary request I the appellant (opponent) had plenty of opportunities to raise an inventive step attack based on D7 in view of its alleged relevance in respect of feature 1.7. Therefore, the Board cannot see any exceptional circumstances justifying with cogent reasons the submission of this allegedly more relevant and decisive inventive step attack at a late stage of the appeal proceedings. The Board does not see how this conclusion can be affected by the alleged fact that documents D1 and D7 have a very similar technical content and hence that the new line of attack would not negatively impact on procedural economy does not change. Although similar, these documents are not identical, and thus it can hardly be stated in advance that no new elements would be introduced in the reasoning when starting from D7 as compared to the reasoning when starting from D1. In fact, if the line of attack starting from D7 were analogous to that starting from D1, then it would fail to convince analogously as the line of attack starting from D1.

- 7.4 In view of all the above, the Board finds that no exceptional circumstances of the appeal proceedings justified by cogent reasons have been presented by the appellant (opponent) which could legitimize the submission of this new line of arguments at this late stage of the appeal proceedings.

The Board thus decided not to admit the new line of inventive step attack based on D7 as closest prior art under Article 13(2) RPBA.

8. Method claim 13 contains the subject-matter of independent product claim 1 of the patent as

maintained. Its subjected-matter is thus novel and involves an inventive step within the meaning of Articles 52(1), 54 and 56 EPC for the same reasons presented in respect of independent product claim 1.

8.1 In view of all the above also the appeal of the appellant (opponent) has to be dismissed and the interlocutory decision of the opposition division confirmed.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar:

The Chairman:



H. Jenney

G. Pricolo

Decision electronically authenticated