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Datasheet for the decision of 23 May 2025

Case Number: T 0161/24 - 3.2.06

Application Number: 17716246.8

Publication Number: 3443155

IPC: D03D15/567

Language of the proceedings: EN

Title of invention:
WOVEN FABRIC AND METHOD OF PRODUCTION THEREOF

Patent Proprietor:
Calik Denim Tekstil San. Ve Tic. A.S.

Opponent:
Sanko Tekstil Isletmeleri San. Ve Tic.

Headword:

Relevant legal provisions:
EPC Art. 100(b), 123(2), 84, 83
RPBA 2020 Art. 13(1), 13(2)

Keyword:
Grounds for opposition - insufficiency of disclosure (yes)
Amendments - allowable (no) - extension beyond the content of the application as filed (yes)
Claims - clarity - auxiliary request (no)
Sufficiency of disclosure - after amendment - (no)
Amendment to appeal case - amendment detrimental to procedural economy (yes)
Amendment after summons - exceptional circumstances (no)

Decisions cited:
G 0002/10, G 0001/24, T 2773/18, T 0149/21, T 0748/19

Catchword:

Europäisches Patentamt
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Beschwerdekammern

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Case Number: T 0161/24 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 23 May 2025

Appellant: (Patent Proprietor)	Calik Denim Tekstil San. Ve Tic. A.S. Keresteciler Sitesi Fatih Caddesi Ladin Sokak No:17 Merter Güngören Istanbul (TR)
Representative:	Schmid, Nils T.F. SKM-IP PartGmbB Oberanger 45 80331 München (DE)
Respondent: (Opponent)	Sanko Tekstil Isletmeleri San. Ve Tic. Organize Sanayi Bölgesi 3. Cadde 16400 Inegol - Bursa (TR)
Representative:	Gislon, Gabriele Marietti, Gislon e Trupiano S.r.l. Via Larga, 16 20122 Milano (IT)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 14 December 2023 revoking European patent No. 3443155 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

Chairman	M. Harrison
Members:	T. Rosenblatt
	W. Ungler

Summary of Facts and Submissions

I. The appellant (proprietor) filed an appeal against the decision of the opposition division revoking the patent in suit (hereinafter "the patent").

II. According to the impugned decision, the opposition division considered that the ground for opposition pursuant to Article 100(b) EPC prejudiced maintenance of the patent as granted (main request, see point 3 of the reasons for the decision). The opposition division rejected the proprietor's request submitted during the oral proceedings, after the division's conclusion on the main request, for continuation of the procedure in writing (see point 4, *ibid*.). Auxiliary requests 1 to 3, filed during the oral proceedings, were admitted into the proceedings (see points 5 and 9, *ibid*.), in contrast to auxiliary requests 7 to 9, which had first been filed in written proceedings, then subsequently withdrawn and later re-submitted and ultimately not admitted during the oral proceedings (see point 9.3, ibid.). Auxiliary requests 1 and 2 were considered to lack clarity as required by Article 84 EPC (see points 6 and 7, *ibid.*), whereas auxiliary requests 3 to 6 failed to meet the requirement of Article 123(2) EPC and auxiliary requests 4 to 6 also the requirement of Article 83 EPC (see points 10 and 11, *ibid.*). The opposition division did not give the proprietor a further opportunity to submit amendments.

III. With its statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and the patent be maintained as granted (main request), or subsidiarily that the patent be maintained in amended form according to one of the requests as set

out in Section II of the appeal grounds (see page 2), namely:

(a) for the case that the Board would not agree with the appellant in regard to Article 100(b) EPC, auxiliary requests AR_S1 to AR_S4 were filed,
(b) for the case that the Board would not agree with the appellant in regard to Article 100(c) EPC, auxiliary requests AR_D1 to AR_D4 were filed,
(c) for the case that the Board would not agree with the appellant in regard to Article 100(a) EPC, auxiliary requests AR1 to AR15 were filed, limiting the independent claims by additional features, and AR_M, limiting the claims by deleting the product claims,
(d) the appellant also requested to be given an opportunity, if needed, to file AR1_M to AR15_M too, being based on AR1 to AR15 with deleted product claims,
(e) any possible combination of the above listed auxiliary requests;
(f) for the case that the Board would not allow the appellant to proceed as requested and in view of the fact that the appellant's patent would have been revoked by the opposition division because such "conditional requests" would have been found not to be allowable by the opposition division, it was further requested to allow "the enclosed Auxiliary Request comprising the above listed Auxiliary Requests and some combinations thereof", listed in a table in the following order on pages 2 to 4 and 59 (here noted by the Board that the latter page mentions MR_M_S4_D4, which is not mentioned on pages 2 to 4):

AR_S1 to AR_S4,

AR_D1 to AR_D4,
AR_S1_D1 to AR_S4_D1 (AR_S1-S4 with AR_D1),
AR_S1_D2 to AR_S4_D2 (AR_S1-S4 with AR_D2),
AR_S1_D4 to AR_S4_D4 (AR_S1-S4 with AR_D4),
AR1 to AR15,
MR_M (method claims of main request),
AR1_M to AR15_M (method claims of AR1 to AR15),
AR1_S4_D4 to AR15_S4_D4 (AR1 to AR15 with AR_S4_D4),
MR_M_S4_D4,
AR1_M_S4_D4 to AR15_M_S4_D4 (method claims of AR1_S4_D4 to AR15_S4_D4),

(g) reimbursement of the appeal fee.

IV. The parties were summoned to oral proceedings before the Board.

V. In a subsequent communication pursuant to Article 15(1) RPBA, the parties were informed of the Board's preliminary opinion. It was noted that amongst the appellant's requests (as summarised above) the following requests had not actually been submitted with the grounds of appeal:

AR_S1_D2 to AR_S4_D2,
AR1_M to AR15_M,
AR1_M_S4_D4 to AR15_M_S4_D4.

The Board stated further that the skilled person was seemingly not able to carry out the claimed invention of the patent as granted (Article 100(b) EPC). With respect to the auxiliary requests, the Board saw no reason not to admit at least auxiliary requests AR_S1 to AR_S3 into the proceedings, noting however that

auxiliary requests AR_S1 and AR_S2 did not meet the requirements of Article 84 EPC, whereas auxiliary request AR_S3 seemingly failed to satisfy the requirement of Article 123(2) EPC. Irrespective of the question of its admittance, auxiliary request AR_S4 anyway appeared not to meet the requirements of Articles 84 and 123(2) EPC. The Board further noted that it had not been argued why any of the other auxiliary requests summarised above in point III.(f) and submitted with the appeal grounds would be allowable under Article 83 EPC and overcome at least the objections under Articles 84 and 123(2) EPC which seemingly prejudiced maintenance of the patent in amended form according to auxiliary requests AR_S1 to AR_S4.

VI. In a subsequent letter dated 19 May 2025, the appellant submitted further arguments and further auxiliary requests AR_S5,
AR_M_S5, AR_M_S5_D1, AR_M_S5_D4,
AR1_S5_D4 to AR15_S5_D4, and
AR1_M_S5_D4 to AR15_M_S5_D4.

Auxiliary requests AR_S5_D1, AR_S5_D4, which were also announced in that letter were however not actually submitted.

VII. Oral proceedings before the Board took place on 23 May 2025. The final requests of the parties were as follows:

The appellant requested that the decision under appeal be set aside and the patent be maintained as granted (main request), in the alternative that the patent be maintained in amended form on the basis of one of the auxiliary requests listed under section II of the

statement of grounds of appeal (see point III above), or on the basis of auxiliary request AR_S5, or of any further auxiliary requests based on that auxiliary request, as filed with letter of 19 May 2025.

In addition, the appellant requested that the appeal fee be reimbursed and that the case be remitted to the opposition division if the Board were to find that any of the requests would overcome the objections on which the contested decision was based.

The respondent (opponent) requested that the appeal be dismissed.

VIII. Claim 1 of the patent as granted (**main request**) has the following wording (alphabetical feature designation in square brackets having been added according to page 6 of the appeal grounds):

> "[**a**] Woven fabric, particularly a warp faced fabric, such as a denim fabric, comprising:
> [**b**] a front (2) and a back (3),
> [**c**] a plurality of picks (6) extending in weft direction (H) and
> [**d**] a plurality of warp yarns (4, 5) extending in warp direction (V) and bypassing picks (6) at their front side (62) to define over portions (43, 53) and bypassing picks (6) at their back side (63) to define under portions (41, 51),
> [**e**] wherein said plurality of warp yarns (4, 5) comprise frontside warp yarns (4) and backside warp yarns (5),
> [**f**] said frontside warp yarns (4) and said backside warp yarns (5) being designed and/or woven such that under portions (51) of the backside warp yarns (5) form loose loops extending looser than the

under portions (41) of said frontside warp yarns (4),
[**g**] wherein a loose loop can be identified in a woven fabric in that the length of the backside warp yarn forming the under portion is larger than the distance between over portions between which said loose loop under portion extend,
characterized in that
[**h**] at least one of the plurality of backside warp yarns (5) is thinner than at least one of the plurality of frontside warp yarns (4)."

The expressions "weft" or "weft yarn" will be used synonymously with the term "pick" in the following. The "distance between over portions between which said loose loop under portion extend" referred to in feature **g** will also be called "bridging length" in the following.

The claims of the granted patent also comprise a further independent product claim 2 and an independent method claim. Their wording is however not relevant to the present decision.

Based on granted claim 1, the following feature has been inserted after feature g in the preamble of claim 1 in **auxiliary request AR_S3:**

"wherein the under portions (41) of the frontside warp yarns (4) do not form loose loops"

In addition to the amendment of claim 1 of auxiliary request AR_S3, the following feature has been inserted between features f and g in claim 1 of **auxiliary request AR_S4 :**

"wherein the loose loops of the backside warp yarns are formed after the woven fabric is taken off the loom or after washing of the fabric"

Claim 1 of **auxiliary request MR_M_S4_D4** reads as follows (alphabetic feature designation based partly on page 8 of the appeal grounds):

"[**j**] Method for producing a woven fabric, preferably a warp faced fabric, such as a denim fabric, comprising the steps

[**k**] a. providing one or more weft yarns for weaving picks (6) and a plurality of warp yarns (4, 5) ;

[**l**] b. weaving the fabric so that the plurality of warp yarns (4, 5) form over portions (43, 53) bypassing the picks (6) at their front side and under portions (41, 51) bypassing picks (6) at their back side,

[**m**] wherein a plurality of frontside warp yarns (4) and a plurality of backside warp yarns (5) are realized;

[**n**] wherein frontside warp yarns (4) are selected and/or woven such that said under portions (51) of the backside warp yarns (5) are loops extending at the back (3) of the fabric, which loops are looser than the under portions (41) of the frontside warp yarns (4),

[**n'**] wherein the loose loops of the backside warp yarns are formed after the woven fabric is taken off the loom or after washing of the fabric,

[**o**] wherein a loose loop can be identified in a woven fabric in that the length of the backside warp yarn forming the under portion is larger than the distance between over portions between which said loose loop under portion extend,

[**o'**] wherein the under portions (41) of the frontside warp yarns (4) do not form loose loops,
[**o"**] wherein the under portions of the backside warp yarns bypass more picks than the under portions of the frontside warp yarns,
characterized in that
[**p**] at least one of the plurality of backside warp yarns (5) is thinner than at least one of the plurality of frontside warp yarns (4)."

The wording of the amended claims according to the remaining auxiliary requests is not relevant to the decision.

IX. The following evidence referred to by the parties is relevant to the present decision:
D9: WO 2011/104022 A1
D21: "*Expert Opinion on the Methodology for Distinguishing Warp and Weft Threads in Special Denim Fabrics*"

X. The arguments of the appellant may be summarised as follows:

Main request - Article 100(b) EPC

(a) In the statement of grounds of appeal, the appellant presented the following arguments:

The skilled person understood from the teaching of the patent as a whole, in particular from feature g) and paragraph 34, that looseness could be quantified by the length ratio of loop length to the distance between over portions framing that loop, i.e. the distance bridged by the loop in the weft direction (bridging length), so that a looser loop could be identified as

that loop having the higher length ratio. Contrary to the view of the opposition division, the skilled person was aware of a plurality of methods to properly measure the loop length and the bridging length in a woven fabric, such as by colour marking start and end points of a loop, cutting the loop and measuring its length, or the methods described in the expert opinion D21, notably those mentioned in section C on page 18.

The second issue considered by the opposition division in the reasons for the decision, namely the alleged impossibility to establish relative looseness, related merely to a lack of clarity rather than to an insufficiency of disclosure. Since the patent quantified looseness by the length ratio, the skilled person would have immediately understood an under portion to be looser than the other one if its length ratio was higher. Even if the view of the opposition division would be followed that, based on paragraph 34 of the patent, absolute lengths would have to be compared, rather than length ratios, the skilled person would still be able to carry out the invention. The extreme examples relied upon by the opposition division to show that the comparison of absolute length would lead to inconsistent results merely confirmed that the skilled person would have considered length ratios. Even with the approach of absolute length, the patent provided twelve examples showing the skilled person how to put the invention into practice, thereby providing sufficient disclosure. The extreme examples considered by the opposition division were moreover based on the assumption that very loose loops were present in both warp yarn systems, whereas in all embodiments (examples 13 to 24 on pages 16 to 17 of the patent) loose loops were provided in only one, i.e. the backside warp yarn system, so that for these embodiments the question of a

loose loop was easy to answer.

(b) In its submission dated 19 May 2025 and also during the oral proceedings before the Board, the appellant presented the following considerations.

Both the term and the concept of a "loose loop" was commonly known in the field of fabrics, evidence of which was D9. Moreover, measurement of lengths - which were anyway commonly known for weaving professionals, as evident from D21 - referred to in feature **g**, was not required, since only a relative looseness between the yarns of the two warp yarn systems had to be established, which could be established by the skilled person. For example, from Figures 4a, 4b, 5a and 5b of the patent, which illustrated realistic fabric, the skilled person immediately saw that relative length differences could be easily recognised. From paragraph 34 of the patent it was moreover clear, that loose loops presented a substantial length surplus of at least 25% compared to the bridging length, thus excluding extreme cases of only small length differences. The "can"-wording used in feature **g** of claim 1 indicated that the methods of measurements were optional and thus not required.

Concerning the question of whether the skilled person was able to establish "relative looseness" between under portions of the frontside warp yarns and backside warp yarns, the appellant considered that frontside warp yarns with loose under portions were not covered by the opposed patent so that relative looseness could be easily established as a loose under portion being always looser than an under portion which was not loose. Should the Board interpret claim 1 more broadly (i.e. encompassing frontside warp yarns with loose

under portions), the appellant was still of the opinion that the question of whether "length surplus", "loop ratio" or a simple "pulling-test" was to be used for establishing relative looseness, this was a question of clarity, not of sufficiency. Upon proper claim construction and considering the effect to be achieved according to the patent specification, the claim(s) had to be understood to cover only embodiments of fabrics comprising loose loops exclusively in the backside warp yarn system, the frontside warp yarn system not comprising loose loops, so that a method of comparing a looseness parameter was not required. Further to that, in view of the limited scope of the patent for which this question was relevant, if at all, namely only for extreme examples which were not described anywhere, nor shown or indicated in the patent, it was not justified to consider the patent as a whole to be insufficiently disclosed.

The arguments made in the letter submitted in reply to the Board's preliminary opinion constituted merely a development of, or another perspective on, the arguments presented in the appeal grounds which were also consistent with what had been argued during the opposition procedure. In as far as the arguments were considered as amendments of the appellant's case, they were nevertheless admissible. The Board had not set any deadline for filing a response to its preliminary opinion.

Auxiliary request AR_S3 - Article 123(2) EPC

The added feature was based on the second paragraph of page 16 of the application as filed. The mechanisms of loop formation mentioned in this context in the description could be left out of the claim, since

straight yarns in the frontside warp yarns could be claimed broadly. The embodiments incorrectly considered by the opposition division to fall under the amended claim were mentioned nowhere in the claims or the description nor would they seem plausible to the skilled person, such that their alleged coverage by the claim could not constitute an intermediate generalisation. Moreover, the "can"-language used in the relevant sentence on page 16 of the application, indicated that the tension differential as well as the mechanisms of loop formation were optional. The skilled person would have understood, as the only relevant information of that passage, that the frontside warp yarns did not comprise loose loops. The backside warp yarns were anyway tensionless, so that the tension differential to the frontside warp yarns was implicit in the amended claim.

Auxiliary request AR_S4 - Article 84 EPC

Although the added features relate to a manufacturing aspect, the claim was nevertheless clear since it defined clear states for the loop formation, i.e. in which the loop portion was to be identified, thereby excluding that the fabric could be on the loom.

Auxiliary request AR_M_S4_D4 - Article 83 EPC

Auxiliary request AR_M_S4_D4, which was filed with the grounds of appeal, constituted an appropriate response to the clarity objection raised by the Board against auxiliary request AR_S4 and should therefore be admitted. The amended method claim comprised *inter alia* the features added in auxiliary request AR_S4. It overcame the clarity objection since the subject-matter was directed to a method. Moreover, it also overcame

the outstanding objection under Article 83 EPC. By defining that the method resulted in a fabric which had no loose loops in the frontside warp yarns, the comparison of looseness based on a measurement of the length and distance could be dispensed with. Methods for weaving fabrics without loose loops had been known for ages, as were methods for weaving fabrics comprising long loops. The absence of loops just meant that for every under portion of a frontside warp yarn, its length was equal to the bridging length, excluding any perceivable curvature and deviation from the direction of warp yarns. Loose loops in contrast deviated from the general warp yarn direction. To obtain such woven fabric, the method had to be set up accordingly, which set-up was known to the skilled person. Paragraph 20 of the patent indicated how the presence of loose loops could be confirmed in such fabrics.

Other auxiliary requests

The other auxiliary requests submitted with the grounds of appeal are intended to overcome different, non-related objections raised against the granted claims.

Auxiliary request AR_S5 and the other auxiliary requests based on this, submitted with the letter dated 19 May 2025, should be admitted into the proceedings since these represented a reaction to the Board's preliminary opinion, noting that no deadline for filing further submissions had been set. The combination of a preliminary opinion by the Board considering an optionally introduced feature (in auxiliary request AR_S3) as inextricably linked with other features in the description, together with the fact that the underlying reasoning was not discussed before the

opposition division, and which involved multiple assumptions which were neither supported by the description (loose under portions in the frontside warp yarns) nor realistic (loops on the loom) constituted exceptional circumstances according to Article 13(2) RPBA justifying the filing of auxiliary request AR_S5, and the other auxiliary requests based on it, at this stage of the proceedings.

Request for reimbursement of the appeal fee

The opposition division committed several errors when exercising its discretion not to admit further auxiliary requests during the oral proceedings after having concluded that auxiliary request 3 contravened the requirement of Article 123(2) EPC based on considerations which came as a surprise for the appellant at that stage of the procedure. The refusal of the appellant's request to continue the oral proceedings before the opposition division on a second day unnecessarily prolonged the proceedings and led to the filing of the appeal, for which reason the appeal fee should be reimbursed.

XI. The arguments of the respondent may be summarised as follows:

Main request - Article 100(b) EPC

The patent did not comprise sufficient information relating to a method for determining whether or not a loop is loose or not. No evidence had been provided that the concept of "looseness" and its determination on yarns, in particular when woven into a fabric, would belong to the common general knowledge of the skilled person.

D9 was a single patent document and therefore could not be regarded as a proof for this allegation.

Neither the claims nor the description of the patent specification comprised a definition of the start and end point of a loop, nor an explanation of the conditions of the fabric under which the measurement of the loop length should be carried out. There was no evidence that such measurements belonged to the common general knowledge of the skilled person. Small shifts in the start and end points on a relevant warp yarn section could have a great impact on the determination of the lengths, in particular since weave densities may be high in the woven fabric, resulting in extremely small length differences having to be determined. The expert opinion D21 had been established to respond to a different question, unrelated to the determination of loop length. The methods disclosed therein were also incompletely described. Also, the fabric shown in the photograph did not correspond to the fabric shown in the schematic figures.

The determination of looseness according to feature g had been introduced before grant in order to delimit the claim's subject-matter and was thus not an optional feature. But even if it were considered to be optional for some reason, it was now in the claim, so that at least this part of the claim was insufficiently disclosed.

Neither the claims nor the description comprised a definition of the feature "looser", nor an explanation of how to determine the looseness ratio of the two types of yarns.

The appellant's letter dated 19 May 2025 comprised new submissions, partly even in contradiction to arguments submitted by it during the examination proceedings. These should not be admitted into the proceedings.

Woven fabrics according to claim 1 could comprise loose loops also in the frontside warp yarns. This was even implicit from the term "looser" in feature f and by paragraph 34. There was no indication in the patent that loose loops were excluded in the frontside warp yarns.

There was no evidence that the "pulling test" referred to by the appellant was part of common general knowledge. The conditions under which such test should be performed were simply unknown. Visual inspection of a woven fabric on the basis of the figures of the patent, which anyway did not represent realistic fabrics, was a subjective method of evaluating relative looseness and could thus not replace an objective measurement.

Auxiliary request AR_S3 - Article 123(2) EPC

The sentence on page 16 of the description of the application as filed, on which the amendment of claim 1 of auxiliary request AR_S3 was based, referred to the "respective warp yarn tension", and made a comparison between the loose loops and part of the frontside warp yarns, i.e. the part of the frontside warp yarns that do not comprise loose loops, suggesting that some of them do. There was however no disclosure that all frontside warp yarns did not form loose loops. None of the other exemplary methods of loop formation mentioned in the patent disclosed that the frontside warp yarns

did not comprise loose loops.

Auxiliary request AR_S4

Auxiliary request AR_S4 should not be admitted into the proceedings.

Auxiliary request AR_M_S4_D4 - Article 83 EPC

Auxiliary request AR_M_S4_D4 should not be admitted into the proceedings since it *prima facie* could not overcome the issue of insufficiency of disclosure. The skilled person still needed to know how to determine "loose loops" and non-loose loops in order to produce a corresponding fabric. The indication in paragraph 20 of the patent was directed to measurements on the entire fabric, rather than on respective portions of the warp yarns.

Other auxiliary requests

Any of the new auxiliary requests which were not filed in the opposition proceedings should not be admitted into the proceedings.

Reasons for the Decision

Main request - Article 100(b) EPC

1. The Board confirms the conclusion reached by the opposition division that the ground for opposition under Article 100(b) EPC prejudices maintenance of the patent as granted.

2. The question to be answered is whether the patent in suit discloses the invention defined in claim 1 in a manner sufficiently clear and complete for it to be carried out by the skilled person over the whole scope of the claim. The crucial issue in this regard concerns what the feature "*loose loops*" and "[extending] *looser than...*" as defined in features **f** and **g** of claim 1 signifies.

3. For a general understanding of the meaning of certain terminology used in the claim, Figure 5b of the patent is reproduced below, this showing a cross-sectional view in the weft direction of a woven fabric after shrinking:

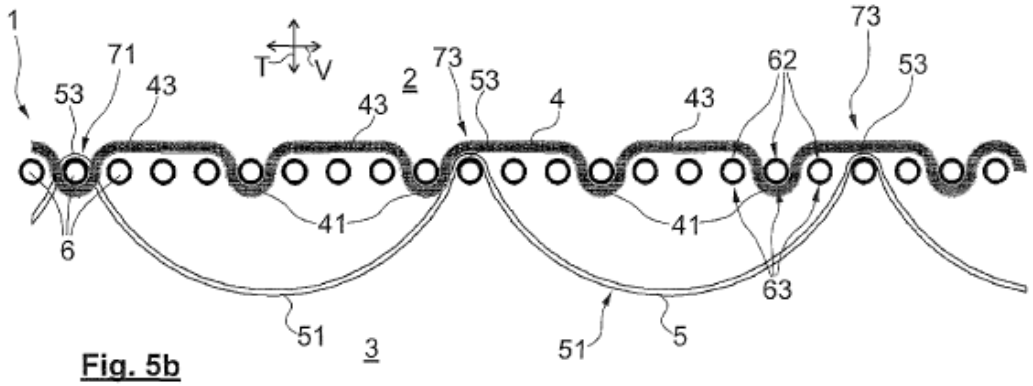

Fig. 5b

The frontside of the illustrated woven fabric is

oriented upwards, the backside being oriented downwards (see paragraphs 58, 59 of the patent in suit). When transformed into a garment, the backside of the woven fabric is intended to be directed to the wearer's skin, even though the claim does not define any limitation in this sense. Warp yarn 4 is a frontside warp yarn, while yarn 5 is a backside warp yarn. Weft yarns 6, or "picks", are seen in cross-section. Reference number 41 points to under portions of the frontside warp yarn and number 51 to under portions in the backside warp yarn (see paragraphs 60, 61 of the patent). Based on a common understanding of the term "loose", under portions 51 would be considered to constitute loose loops whereas under portions 41, illustrated as conforming relatively tightly around the respective single weft yarn, would normally be understood not to form loose loops. Feature **g** of claim 1 however gives a particular meaning to the expression "loose loop" which raises the question whether under portions 41 are indeed non-loose loops (see below point 5.4.1).

4. The appellant's arguments submitted in the appeal proceedings rely in part on a narrow construction of claim 1. A decision on the ground for opposition under Article 100(b) EPC therefore requires in a first step to set out how the skilled person understands claim 1.

4.1 Claim 1 is directed to a woven fabric. The further specifications in feature **a** following on from the designation of the subject-matter preceded by the term "particularly", i.e. "a warp faced fabric, such as a denim fabric", are optional and do not imply any further structural or functional limitation to the claimed woven fabric and its frontside warp yarns and backside warp yarns.

4.2 Feature **f** specifies "*said frontside warp yarns (4) and said backside warp yarns (5) being designed and/or woven such that under portions (51) of the backside warp yarns (5) form loose loops extending looser than the under portions (41) of said frontside warp yarns (4)*". It is undisputed that according to this feature, the backside warp yarns of the woven fabric according to claim 1 comprise under portions which form "loose loops" as further defined by feature **g**. The final clause in feature **f** introduces a comparison according to which loose loops formed in the backside warp yarns extend "*looser than the under portions of said frontside warp yarns*". The Board agrees with the respondent's argument submitted during the oral proceedings that, for the skilled person, this wording implies that the frontside warp yarn may also include loose loops. Otherwise, "looser", the comparative form of the adjective "loose" would be devoid of any technical meaning. Although the claim also covers embodiments in which the frontside warp yarns do not comprise under portions which form loose loops, it does not exclude frontside warp yarns having such loose loops.

4.3 According to feature **g** "[*...*] *a loose loop can be identified in a woven fabric* [*in that...*]" (underlining added by the Board). The Board is not convinced by the appellant's contention that the use of the verb "can" in this feature indicates that a loose loop is only optionally identifiable by precise measurements, so that the determination of looseness of the loop would allegedly not require a method of determination or measurement of the lengths referred to in feature **g** at all. Although the word "can" is frequently used in patent drafting language to designate an optional feature (albeit then normally confined to the

description), in the present context it is understood as defining how loose loops are to be identified. On the one hand, the Board agrees that no specific method of determination or measurement is required. However, on the other hand, the determination of the feature "loose loop" in the frontside and backside warp yarn systems according to feature **g** requires a determination or measurement of the relevant length and distance, by some undefined method, in order to decide whether a given loop is loose or not. A subjective determination by just comparing loop length with bridging distance, for example by visual inspection as also argued by the appellant, without using an objective means, i.e. a measurement of the two lengths, is not a technically reasonable interpretation of the wording, when considered by the skilled person. A corresponding measurement is thus required and constitutes an implicit limiting feature of the claimed woven fabric.

4.4 Finally, the definition of what is meant by a loose loop according to feature **g** does not imply any minimum (or maximum) number of weft yarns to lie between the two over portions between which an under portion extends. An under portion of a (frontside or backside) warp yarn may therefore bypass only a single weft yarn on its backside before it returns to become a respective over portion passing on the frontside of the respective adjacent weft yarns. If the length of such an under portion bypassing a single weft is greater than the distance between the two over portions, it will constitute a loose loop. It is furthermore noted that feature **g** does not require any particular minimum amount of length surplus in this regard.

4.5 The appellant's further arguments for a more limited interpretation of the subject-matter of claim 1, i.e.

allegedly covering only embodiments of woven fabrics in which the frontside warp yarn system would not comprise any loose loops, in as far as they have not already been dealt with above, are unconvincing for the following reasons.

4.5.1 The claims shall define the matter for which protection is sought (Article 84 EPC). The Board cannot see a legal basis to necessarily restrict the scope of the claims by statements and/or features which are only contained in the description.

4.5.2 When taking into account the description of the patent (see e.g. the headnote of G 1/24) - which is not necessarily, and indeed may rarely be, limiting for the claimed subject-matter due to the primacy of the claims which may be broader than particular limited examples and explanations given in the description - there is anyway nothing in the cited passages of the description which would support the appellant's narrower interpretation of claim 1.

The Board accepts that the description attributes different functions to the frontside and backside warp yarn systems (feel and drape like a knitted fabric by loose loops at the backside, denim-like look at the frontside). However, the Board cannot agree that these different functions generally exclude the presence of any loose loops in the frontside warp yarn system. As also argued by the respondent during the oral proceedings, loose loops in the frontside warp yarn system could at least to a certain extent also contribute to the knitted feel of the fabric and can therefore not be considered generally excluded in the frontside warp yarns based on the assumption that the knitted feel relies on loose loops on the backside of

the woven fabric. Also the under portions or (loose) loops of the frontside warp yarns are situated on the backside of the woven fabric.

4.5.3 The passages specifically referred to by the appellant also do not support its contention.

Paragraph 3 of the patent describes different properties of knitted fabrics and the inconveniences which would be faced if indigo-dyed yarns (commonly used in denim fabrics) were to be used. It does not mention different or distinguishable warp yarn systems.

Paragraph 10 is directed "*to the general concept of the invention*" and discloses two distinguishable warp yarn systems in which, in particular, the yarns of the frontside warp yarn system "*are generally woven with the weft yarn(s) to create a woven fabric of a typical design, preferably having a denim-like look*" (underlining added by the Board). Already in this statement at the beginning of paragraph 10, the range of woven fabrics being considered is broader than only the set of fabrics in which loose loops could possibly be seen to be excluded in the frontside warp yarn system, noting here that the appellant considered, for example, that a denim fabric excluded the presence of loose loops and had argued that this should be determinative for claim 1. This is so because, firstly, a denim-like look is only considered as a preferred embodiment ("*preferably*") and, secondly, a particular weave structure is not required but only a certain "-like look". Moreover, the absence of loose loops is nowhere explicitly mentioned in paragraph 10. Further, the indications given in the lines following on from the above citation do not imply a general absence of loose loops in the frontside warp yarns. They merely set out

different mechanisms to obtain a woven fabric with two distinguishable warp yarn systems, as also argued by the respondent.

The sentence in lines 51 to 53 on page 8 of the patent (in paragraph 34), to which the appellant further referred, reads: "*In the loose loops, the of the* [sic!] *respective warp yarn tension after removal from the loom and/or after washing can be much less than in the frontside warp yarns that do not comprise loose loops*". Also this sentence fails to support the appellant's contention. The Board instead agrees with the submission made by the respondent during the oral proceedings that, in as far as this sentence can be understood at all (see also below, point 10.), it merely refers to an embodiment rather than stating a general requirement for the frontside warp yarn system. Moreover, and as again pointed out by the respondent in the oral proceedings, this sentence is preceded by other statements comparing the yarn under portions of the two warp yarn systems. For example, line 42 discloses that the backside warp yarn under portions or loops can extend curved, "*in particular more curved than the frontside warp yarn's under portion*" (underlining added by the Board), thus implying that the frontside warp yarns may also extend curved (see lines 39 to 41).

Examples 13 to 24, disclosed in tabular form on pages 16 and 17 of the patent and also referred to by the appellant, do not lead to a different conclusion. The table starts at the bottom of page 14, preceded by paragraph 79 and examples 1 to 12. As already stated by the Board in the last paragraph of point 2.5 of its communication pursuant to Article 15(1) RPBA, there is no indication in the table for examples 13 to 24 in

regard to the (relative) looseness of loops of the two types of warp yarns, let alone in regard to the criteria to be used for determining whether some warp yarn loop is looser than a loop in the other warp yarn. The appellant did not reply to this part of the Board's preliminary opinion. The Board is therefore unable to see how these examples, for which it is not even clear that the backside warp yarns would be looser than the frontside warp yarns, could support the appellant's view that the presence of loose loops in the frontside warp yarns system would be excluded in the examples.

4.6 Summarising the above conclusions of the Board: the general woven fabric according to claim 1 may comprise loose loops in both the frontside and backside warp yarn systems, and the feature "loose loops" or the "looseness" of loops determined on the basis of the definitions in feature **g** is a limiting feature of the claim requiring an objective method of determining looseness based on the determination of the two lengths.

5. In order to carry out the claimed invention, the skilled person must therefore be able to determine whether an under portion is a loose loop according to feature **g** and whether a given loose loop of a backside warp yarn is looser than a given (loose) loop of a frontside warp yarn according to feature **f**.

5.1 Feature **g** requires a comparison of the length of a backside warp yarn forming the under portion (or loop) and of the distance between over portions between which said (loose) loop under portion extends.

Consequently, the skilled person must be able to reliably and reproducibly determine the loop length and

the bridging length in a woven fabric of claim 1. The skilled person also needs to know the parameter to be used to conclude on the relative looseness of two loose loops of a frontside and a backside warp yarn according to feature **f**.

5.2 It has not been contested that the patent does not disclose any method of determining or measuring the loop length and the bridging length.

5.3 There is furthermore no evidence on file that the concept of looseness of loops or the determination of the two lengths belongs to common general knowledge.

In reply to the Board's preliminary opinion, the appellant submitted that the "looseness" of loops was a commonly used term or concept at least in the new field of woven fabrics having a knit-like feel as essentially newly established by D9. The Board is, however, not convinced by this argument for the following reasons.

5.3.1 D9 is an international patent application in the name of the respondent, having one inventor name in common with the present patent in suit. It is established case law that patent specifications are not normally part of the common general knowledge of the skilled person (see for example I.C.2.8.2, Case Law of the Boards of Appeal, 10th edition); a single published application is also found by the Board in this case not to be evidence of common general knowledge in the art.

5.3.2 Irrespective of the question whether the present case could be regarded at all as pertaining to a field of research which is so new that the technical knowledge is not yet available in textbooks, the Board considers that it has not been shown that the specific definition

of a loose loop as provided by feature g of present claim 1 and/or a corresponding method to determine this property was already known in D9. The appellant did not indicate any passage to support its contention and, of its own motion, the Board is also not able to identify relevant information in this regard in D9.

5.3.3 The Board concludes that there is no evidence on file proving that the concept of "looseness" of loops or "loose loops" as defined by feature **g** belongs to the common general knowledge of the skilled person.

5.4 It can also not be concluded that the determination of the two lengths (loop length and bridging length) would be understood on the basis of the indications in the patent taking into account the common general knowledge of the skilled person.

5.4.1 At first glance in regard to Figures 4a, 4b, 5a, 5b of the patent (see also point 2. above), relied upon by the appellant, it might appear evident to measure a length of a yarn segment in a woven fabric in these drawings and to determine whether a loop is loose within the meaning of feature **g** and looser compared to some other loop according to feature **f**.

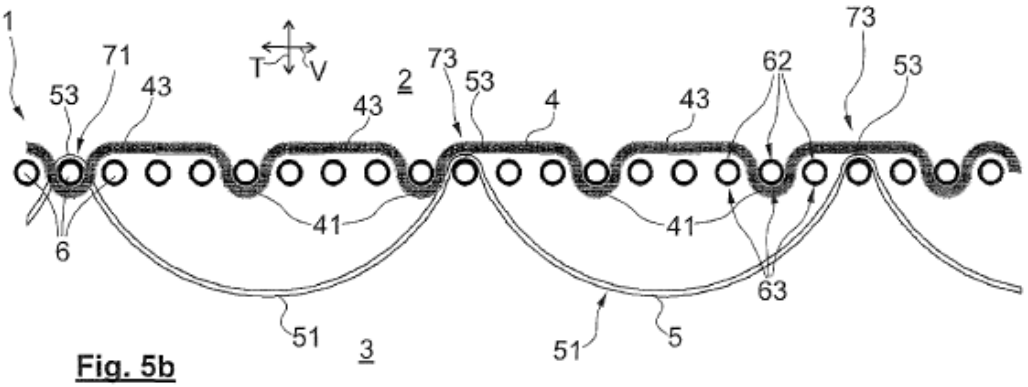

Fig. 5b

There can be no doubt that the loops 51 of the backside warp yarn 5 in Figure 5b would be considered a loose

loop according to feature **g**. However, whether or not an under portion 41 constitutes a loose or non-loose loop (noting that claim 1 does not exclude for example that an under portion may only bypass a single weft yarn, see above 4.3) depends on the length of the yarn section between the chosen start and end points in relation to the bridging length, i.e. the distance between the adjacent over portions 43 between which said under portion 41 extends. If the start and end points in this schematic drawing for under portion 41 were chosen at the exact half distance between the two respective adjacent weft yarns where the under portion returns to become a respective over portion, or even in the alternative at the section where the respective contact surfaces of those weft yarns where the backside warp yarn passes from its under portion to a neighbouring over portion (cf. paragraph 34 of the patent, lines 48-50), wherever such contact-surfaces might be located, the length of the loop would always be longer than the distance between these two points, due to its curvature. It follows that contrary to the common understanding of the expression "loose loop", the under portions 41 constitute a loose loop according to feature **g**. Such an understanding is confirmed also by the arguments of the appellant considering that frontside warp yarns according to the patent would necessarily have to be straight and would not comprise curvature.

5.4.2 As also argued by the respondent, no information is available in the claims or in the description of the patent as to how in the illustrated fabric, let alone in an actual (real) woven fabric, start and end points of a loop should be identified, between which the loop length could be determined.

5.4.3 The opposition division had already pointed out in the appealed decision that these figures of the patent are rather schematic in nature (see for example page 11, line 28, or paragraph 71 of the patent) and do not represent a realistic condition of an actual woven fabric. The distances and lengths which might appear easy to determine based on the illustrated regularity of the figures, will not appear in this way in a real fabric. The fabric will rather be corrugated or crimped (see e.g. paragraph 19 of the patent), while warp and weft yarns will not necessarily lie in a single respective plane. Flattening such corrugated fabric by means of some (unknown) tension applied in order to achieve a configuration similar to that presented in Figure 5b may already alter its structure and the relevant lengths to be determined, i.e. the loop length and the bridging length, as argued by the respondent.

5.4.4 Moreover, weft densities envisaged according to the description of the patent can be as high as 60 wefts per cm, i.e. six weft yarns per mm (see for example paragraph 41 of the patent). Further, according to the description, loops can be as short as bypassing only three wefts (see paragraph 11 of the patent); the claim even covers embodiments where loops bypass only a single weft yarn (see point 4.4 above). Further according to the embodiments disclosed in the description, under portions of the backside warp yarns may bypass only one pick more than the under portions of the frontside warp yarns (see paragraph 12). An under portion in the frontside warp yarn may thus bypass two wefts (or possibly only one, according to the claim) and an under portion of a backside warp yarn may bypass three wefts (or possibly only two, according to the claim).

Measurements would thus have to be carried out on very small portions of warp yarns such as those bypassing only (one, two or) three wefts in a density of 6 wefts/mm, i.e. on a length scale of about 0.5 mm. A small shift in the determination of start and end points of the corresponding loops may thus result in a large difference in the respective measured length. The appellant's argument that small lengths or distances would not be understood as being encompassed by claim 1 since paragraph 34 of the patent considered loop lengths to be at least 25% larger than the bridging length is unconvincing. The claim does not define any such minimum length surplus. Moreover, the passage in paragraph 34 (lines 46, 47 on page 8) on which the appellant relied, discloses such a length difference of at least 25% merely as a preferred value, whereby smaller values are also possible and not excluded by the claim.

Measurement of the length of the loops is further complicated due to the nature of the yarns of real fabrics. Loose loops in warp yarns will not necessarily form a smoothly shaped arc, as illustrated by half-circular or half-elliptical-like shapes in the drawings of the patent (see above under portions 51 and 41 in Figure 5). Instead the loops may well be curled or crimped (see paragraph 19). Also, the claim does not exclude the yarns being made of natural materials (e.g. cotton or wool). Consequently, the yarns may be hairy and of varying diameter, adding to the difficulties in determining relevant lengths. The appellant's contention that the results of measurements would not be influenced by hairiness of the yarns has, again, not been supported by any evidence.

5.4.5 There are no indications in the patent of a measurement method, let alone any indications how these different aspects which clearly affect the determination of the loop length and bridging length should be handled, in order to produce a reliable determination of the lengths, as required by feature **g**.

Furthermore, no evidence is available showing that the determination of these lengths belongs to common general knowledge. It is therefore impossible to reliably and reproducibly determine, over the whole scope of the claim, whether an under portion of the backside or frontside warp yarn system is a loose loop within the meaning of claim 1.

5.5 The appellant's contention that such length measurements were trivial for the skilled person or that the methods specifically cited in its grounds of appeal, which were anyway not mentioned in the patent in suit, belonged to common general general knowledge, is also unconvincing.

5.5.1 If the necessary measurement were indeed so trivial, as submitted in the letter of 19 May 2025, it should have been possible to submit some form of relevant supporting evidence. In the absence of such evidence, this argument must fail.

5.5.2 In its preliminary opinion, the Board had questioned whether marking and cutting untensioned warp yarn under portions under a microscope in realistic densely woven fabrics (see above points 5.4.3 and 5.4.4) was a method commonly employed for the characterisation of woven fabrics, this having been contested by the respondent. The Board noted that no evidence had been submitted to support the appellant's contention in this regard.

The appellant did not submit any further argument in this regard, so that the Board cannot conclude that this method belongs to common general knowledge and could be used to reliably determine the loop length.

5.5.3 As further noted in the Board's preliminary opinion, the expert opinion D21 relates to the question of whether warp and weft yarns can be distinguished in a woven fabric, and not to the question of how to determine the length of a loop, let alone how to measure looseness of loops.

In reply to the preliminary opinion, the appellant further developed its argument based on the content of section C, headed "Microscopic Method", of D21 (page 16). With reference to page 3 of D21, the appellant argued that the expert opinion discussed challenges faced by weaving professionals when attempting to determine the origin of each (warp or weft) thread within the fabric structure (emphasis by the appellant). These arguments are again unconvincing for the following reasons.

Figure 9 of the cited section of D21 shows a cross-section of a resin-infused carbon fibre woven fabric. The Board considers it not even apparent from this figure whether two warp yarn systems according to claim 1 are present. Without any further explanation, the final paragraph of section C simply states that "[*b*]*ased on this documentation one can evaluate* [...] *length difference, ...*". The Board does not agree with the appellant that this statement means that the length of loose loops or the bridging length in a woven fabric according to claim 1 can be reliably determined. No indication can be found in section C of D21 in regard

to the exact conditions necessary to prepare a woven fabric for embedding, soaking, drying and curing, followed by the final cutting slice-by-slice of the so fixed fabric. As argued by the respondent in the oral proceedings, no information is available on how to avoid that the embedding method modifies the fabric's structure and also no details are given on how to determine exact start/end positions of a loose loop in a cut slice. Since a real woven fabric according to claim 1 will present loose loops which, by their very nature and contrary to the schematic view of Figure 3 of the patent reproduced in section C of D21, will not extend in a direction perfectly aligned with the general warp direction, it remains entirely unclear how cutting the fixed fabric along a general warp direction will allow the entire extension of the loop to be assessed. As also discussed during oral proceedings, sections of such loose loops which may extend in a transverse direction to the cutting direction cannot be measured by inspection of the cut slice, making the determination of the loop length impossible. The appellant failed to convincingly explain how features extending out of the cutting plane could be measured.

Contrary to the appellant's contention, the Board cannot see any evidence in D21 that a weaving professional would be generally faced with determining lengths of loose loops in woven fabrics when attempting to determine the origin of a thread (i.e. the determination of whether it is a weft or a warp) within the fabric structure.

6. Feature **f** requires the comparison of two loops in order to determine whether one loop is looser than another. The skilled person would understand that such comparison would have to be based on the definition of

a loose loop according to feature **g**. Since the looseness of loops according to the definitions of feature **g** can, however, not be reliably and reproducibly determined by the skilled person, due to the absence of a method to determine the length and distance on the basis of which looseness is to be determined, a comparison between such loose loops is also not possible, irrespective of the exact parameter which would require evaluation and comparison based on these two lengths (for example, based on their ratio, or based on absolute length surplus).

7. The following additional arguments of the appellant were also found unconvincing.

7.1 The Board does not agree that the lack of disclosure of how to determine whether a given loop is a loose loop according to feature **g** of claim 1 and how to compare two such loose loops would merely amount to a clarity objection. The absence of any method to reliably and reproducibly determine the length and distance specified in feature **g**, or to compare two loose loops as required by feature **f**, does not affect only what the appellant referred to as extreme embodiments at the borders of the scope of protection. There is no technical reason apparent why the skilled person would consider the examples invoked by the respondent (relying on considerations of small lengths and small length differences) or by the opposition division in the impugned decision (comparing different embodiments of rather long loops bypassing different bridging lengths) and those discussed during the appeal proceedings, as extreme examples. It appears rather to be the inverse, namely that only a relatively small set of fabrics in which the frontside warp yarns do not comprise any loose loops - i.e. entirely straight

frontside warp yarns which do not bend at all around weft yarns - and the backside warp yarns form loose loops having a very large length surplus of more than 25% compared to the bridging length might have been enabled by the disclosure of the patent. As has been noted above, even the examples in the patent do not provide any information on the (relative) looseness of the loops.

7.2 The appellant's arguments based on decision T 2773/18, also do not change the Board's conclusion.

7.2.1 The appellant referred to this decision in order to support its argument that, for the assessment of insufficiency of disclosure, the effects to be achieved according to the patent and stated in the description had to be taken into account. The appellant considered in particular that, in the field of mechanics, "as long as the skilled person understands what would work (namely no-loose loops in the frontside warp yarns) and what would not work (namely loose loops in the frontside warp yarns), a claim is sufficiently disclosed even if the claim covers what did not work".

7.2.2 For similar reasons to those held in decisions T 149/21 (see Reasons 3.6) and T 748/19 (see Reasons 21.1), this Board cannot see any basis in the EPC justifying the application of different standards in regard to the requirement of sufficiency of disclosure in different technical fields. This Board also concurs with the view expressed in T 149/21 (*ibid.*) according to which the patent in suit should disclose the invention in a manner sufficiently clear and complete for it to be carried out by the skilled person over the whole breadth of the claim, i.e. according to all technically reasonable interpretations which the skilled person

would consider according to objective criteria based on common general knowledge. Therefore all 'technically reasonable' claim interpretations should be taken into account when examining the ground for opposition under Article 100(b) EPC (or for the equivalent requirement of Article 83 EPC), and not only those claim interpretations which are deemed to achieve effects mentioned in the description but not defined by the claim.

7.2.3 Moreover, the facts of the present case are different to those in decision T 2773/18, so that the considerations underlying that decision do not anyway apply to the present case. Considering the effects to be achieved by the present invention as mentioned in paragraphs 3 and 10 of the patent referred to by the appellant, it cannot be decided "what would work and what would not work". As has been noted by the respondent, there is no technical reason excluding loose loops in at least part of the frontside warp yarns for contributing to the feeling of a knitted fabric as invoked in paragraph 3. It is also not apparent why such loose loops in the frontside warp yarns could not result in a "denim-like look" as mentioned in paragraph 10.

7.3 In the appellant's letter dated 19 May 2025 submitted in reply to the Board's communication pursuant to Article 15(1) RPBA, and also during the subsequent oral proceedings, the appellant raised several new lines of defence which are based on new factual assertions and arguments that build on these alleged facts.

7.3.1 The Board decided not to admit the following arguments of the appellant:

(a) loose loops in the frontside warp yarns would not be possible due to the mechanism leading to their formation during manufacture of the fabric,
(b) looseness of loops could be determined by either visual inspection of the fabric or by a pulling test.

7.3.2 These arguments constitute amendments of the appellant's case within the meaning of Article 13 RPBA. Contrary to the appellant's view, they may not be considered as a mere development of the arguments presented earlier in the appeal procedure. They also do not relate to aspects relevant for claim construction. Had they been such, they would normally have been admitted even at such a late stage of the procedure. The Board did indeed admit other submissions of the appellant for the first time with its letter of 19 May 2025, namely as regards the "can" language used in feature **g**, those based on the allegation that loose loops in frontside warp yarns would be excluded, or the allegation that "loose loops" was a commonly known concept in the new field of the specific woven fabrics disclosed in the patent, which have been dealt with in substance above.

In contrast, the arguments listed under points 7.3.1(a) and (b) involve new technical considerations which had not been raised before and which do not fall under the two exemplary categories of submissions considered here before and which may well be allowed even under the strict provisions of Article 13(2) RPBA. The mechanism of how loose loops may be formed as a result of the weaving process and its possible implication on whether loose loops may be formed in the frontside warp yarns was not something which was raised, or played any role in the appeal cases presented by the parties in the

written part of the procedure prior to the Board's preliminary opinion. Similarly, the visual inspection and pulling tests invoked by the appellant in its letter submitted just four days before, and developed further during the oral proceedings introduce additional technical facts and allegations. Although the test described in D21 may be considered as a kind of "visual inspection", the appellant alleged in the oral proceedings for the first time that visual inspection of the fabric as such would allow the presence of relative looseness to be established, just by comparing the yarns of the frontside and backside warp yarns. These additionally invoked tests would again have required considering new technical issues (for example the underlying conditions, measurement set-up etc.) for the first time during the oral proceedings.

7.3.3 The appellant did not invoke any circumstances which could be regarded as exceptional let alone justified by cogent reasons (Article 13(2) RPBA). The fact that the Board had not set any deadline for further submissions does not mean that the requirements of Article 13 RPBA would not apply.

The Board therefore decided not to admit the submissions summarised in points 7.3.1(a) and (b) into the proceedings.

8. For the above reasons the Board concludes that the invention defined by claim 1 is not disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person. The appellant's main request is thus not allowable.

Auxiliary request AR_S3 - Article 123(2) EPC

9. In the oral proceedings before the Board, the appellant changed the order in which the numbered auxiliary requests should be considered (see above point III.(a)-(f)). After the Board's deliberation and conclusion on the main request, the appellant elected to proceed with auxiliary request AR_S3, without a discussion of preceding auxiliary requests AR_S1 and AR_S2, for which the Board had issued a negative preliminary opinion in regard to the respective amendments.

Auxiliary request AR_S3 corresponds to auxiliary request 3 underlying the impugned decision (see pages 2 and 20 of the appeal grounds).

10. The Board confirms the conclusion reached by the opposition division in the impugned decision on the then pending auxiliary request 3, that the subject-matter of amended claim 1 of auxiliary request AR_S3 extends beyond the content of the application as filed, contrary to the requirement of Article 123(2) EPC.

10.1 For the purpose of comparing the claimed subject-matter with the content of the application as filed, reference is made to the published international application, WO 2017/178438, underlying the patent in suit.

10.2 Compared to claim 1 of the granted patent, amended claim 1 of auxiliary request AR_S3 additionally defines that "*the under portions (41) of the frontside warp yarns (4) do not form loose loops*".

10.3 The added feature is based on a sentence in the second paragraph on page 16 of the application as filed, which reads : "*In the loose loops, the of the* [sic!]

respective warp yarn tension after removal from the loom and/or after washing can be much less than in the frontside warp yarns that do not comprise loose loops" (identical to the sentence in paragraph 34 of the patent referred to above in point 4.5.2.). This passage is undisputedly the sole passage in the application as filed which explicitly mentions "*frontside warp yarns that do not comprise loose loops*".

10.4 The question to be examined is whether amended claim 1 is directed to subject-matter which is directly and unambiguously derivable by a skilled person, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the documents as filed (see e.g. Reasons 4.3 in the Decision of the Enlarged Board of Appeal G 2/10, OJ EPO 2012, 376).

10.5 The added feature is, however, disclosed in the cited sentence only as a result of a tension differential after removal from the loom and/or due to washing, which features have not been included in amended claim 1 without there being any basis for such omission. Contrary to the specific woven fabric having loose loops in a specific portion of warp yarns, namely those in which the yarn tension after removal from the loom and/or after washing can be much less than in the frontside warp yarns that do not comprise loose loops, in the woven fabric according to amended claim 1 the under portions of the (i.e. "all") frontside warp yarns do not form loose loops in general, irrespective of any tension differential and mechanism leading to the formation of loose loops. Alternative mechanisms to those of a tension differential between weaving and removal from the loom and/or washing and which lead to

the formation of loose loops in yarns may rely for example on a different weave tightness (see the penultimate sentence at the end of the second paragraph on page 7 of description, referred to by the appellant as paragraph 15 of patent specification). From the cited sentence and the further passages referred to by the appellant, the resulting subject-matter, a woven fabric with no loose loops in the frontside warp yarns and not obtained by the indicated methods (for example, instead due to different weave tightness) is not directly and unambiguously derivable.

10.6 The Board does not agree with the appellant's contention according to which embodiments considered to fall under the amended claims, which are nowhere mentioned in the application as filed and which would not appear realistic to the appellant, could *per se* not lead to an unallowable intermediate generalisation. The Board could instead concur with this only to the extent that technically unrealistic embodiments would not be considered by the skilled person as being covered by the claimed subject-matter. Technically realistic embodiments which are simply not disclosed as such in the application as filed but which nevertheless fall under the amended claim do, however, indeed constitute relevant subject-matter to be considered when examining the amendment.

10.7 Although several other methods of loop formation are mentioned in the application as filed, for example, in the second paragraph on page 7 of the description as filed (referred to by the appellant as paragraph 15 of patent specification in the grounds of appeal), a woven fabric in which the under portions of the (i.e. "all") frontside warp yarns do not form loose loops is not

mentioned there.

10.8 Moreover, the meaning of the sentence on page 16 on which the amendment is based is already ambiguous due the manifest error in its wording (see the added notation "[sic!]"). As further argued by the respondent and already foreshadowed above, the sentence anyway does not constitute a disclosure for "the" frontside warp yarns in general, i.e. all frontside warp yarns, not forming loose loops, as defined by amended claim 1. As set out above (point 4.5.2) in the context of considering the disclosure of the patent, the beginning of the cited paragraph of the application (corresponding to paragraph 34 of the patent) employs comparative terms of looseness or curvature or straightness for both warp yarn systems which certainly implies that the frontside warp yarns may also comprise loose loops. The respondent's argument that the sentence, read in its context, therefore could indeed be understood to mean that "*respective [backside and frontside] warp yarn tension after removal [...] can be much less than in the [that part of] frontside warp yarns that [said part] do not comprise loose loops*", also constitutes a technically reasonable interpretation. Thus, the cited sentence does not directly and unambiguously disclose that frontside warp yarns in general do not form loose loops.

10.9 The Board is also not convinced by the appellant's view that the tension differential and/or the mechanisms of formation referred to in the cited sentence from page 16 would be understood as optional features due to the verb "can" used in it. Even if for the sake of argument the interpretation as "indicating an option" would be followed, its meaning would still be ambiguous. It could be read in the technically reasonably sense of

"tension can be much less but it could also only be slightly less...", thus relying on a tension differential as a mechanism for loop formation in the backside warp yarns in combination with the exclusion of loose loops in the frontside warp yarns.

10.10 As already stated above in regard to the disclosure of the patent (see points 4.5.2 and 7.2), for corresponding reasons there is no indication in the remaining parts of the application as filed which would have led the skilled person to the conclusion that loose loops in the frontside warp yarn would be generally excluded. The passages additionally referred to by the appellant in the oral proceedings before the Board, i.e. the paragraph bridging pages 4 and 5 (corresponding to paragraph 10 of the patent), or on page 9 (corresponding to paragraph 19 of the patent) do not change this conclusion.

10.11 Consequently, the resulting subject-matter of amended claim 1 extends beyond the content of the application as filed (Article 123(2) EPC).

Maintenance of the patent in an amended form based on the claims of auxiliary request AR_S3 cannot therefore be allowed.

Auxiliary request AR_S4 - Article 84 EPC

11. Irrespective of the question of admittance, which can be left undecided, claim 1 of auxiliary request AR_S4 lacks clarity (Article 84 EPC).

11.1 Amended claim 1 of auxiliary request AR_S4 defines in addition to claim 1 of auxiliary request AR_S3 that "*the loose loops of the backside warp yarns are formed*

after the woven fabric is taken off the loom or after washing of the fabric".

11.2 As already indicated in the Board's preliminary opinion, the use of process features to define a product raises questions in what way a product feature resulting form the methods defined by this feature could be clearly identified on a given product. In other words, it is not clear which functional and/or structural limitation of the claimed subject-matter are implied for the woven fabric by the added process features.

11.3 The appellant's argument that the claim was clear since it defined "clear states for the loop formation" is unconvincing. The claim's subject-matter does not relate to a process of loop formation. It also does not answer the question raised by the Board as to the structural or functional features possibly implied by this definition for a final woven product. That the intention of this amendment would have been to just exclude embodiments of a woven fabric still on the loom, as seemingly considered by the opposition division to be covered by claim 1 of auxiliary request AR_S3 (auxiliary request 3 in opposition), does not alter the fact that the claim lacks clarity for the above reason.

11.4 Since claim 1 of auxiliary request AR_S4 does not meet the clarity requirement of Article 84 EPC, the appellant's request for maintenance of the patent on the basis of this request cannot be allowed.

Auxiliary request MR_M_S4_D4 - Article 83 EPC

12. Contrary to the order in which the auxiliary requests submitted with the statement of grounds of appeal are listed (see above point III.(a)-(f)), the appellant requested in the oral proceedings before the Board after the consideration of auxiliary requests AR_S3 and AR_S4 to proceed with auxiliary request MR_M_S4_D4.

13. This request was filed for the first time with the statement of grounds of appeal. Contrary to the respondent's request, the Board decided to admit auxiliary request MR_M_S4_D4 for reasons which need not to be set out here since the Board concluded that the request was anyway not allowable. Amended claim 1 does not overcome the outstanding objection of insufficiency of disclosure (Article 83 EPC).

13.1 Claim 1 of this auxiliary request is directed to a method for producing a woven fabric. It is based on granted method claim 12 and includes *inter alia* the features **n'** and **o'** which correspond to the features added to the product claim 1 according to auxiliary request AR_S4, by which the appellant tried to overcome the opposition ground pursuant to Article 100(b) EPC.

The further feature **o"** has been added to address a different ground for opposition and is not relevant to the crucial aspect of sufficiency of disclosure considered for the main request. At least this was not argued by the appellant (see also the four lines of the table bridging pages 2 and 3 and relating to auxiliary requests AR_D1 to AR_D4 as well as pages 26, 33, 35 and 36 of the appeal grounds), and the Board is also unable to see that this could be the case.

14. The conclusion of the Board reached with respect to the insufficiency of disclosure to determine whether a loop is loose or not, based on the indications in feature **g** of granted product claim 1, applies by analogy to the present amended method claim 1. Also the amended method claim requires a determination of whether a loop is loose or not according to feature **o**. For analogous reasons as set out in detail above in regard to the main request, the patent does not provide sufficient information for the skilled person to reliably and reproducibly measure the lengths required by feature **o** so as to determine the looseness of loops.

The Board is not convinced by the appellant's argument according to which the skilled person would know, not least on the basis of the methods indicated in the patent, how to produce a fabric with under portions having the claimed properties in the respective part of the warp yarns. The Board can accept that the skilled person has known indeed for a long time how to get a tightly woven fabric in which under portions of warp yarns extend in close contact over the underside of a weft yarn and which would have, conventionally, been designated as not comprising loose loops, and they also know how to weave fabrics having long loops (for example, satin). However, the method claim still defines in feature **o** a particular meaning of a loose loop according to which a tightly conforming under portion on the underside of a single weft yarn is not excluded from being a loose loop within the meaning of claim 1 (see above 5.4.1). Also a long loop could either qualify as loose or non-loose according to feature **o**. The distinction between both types, as already explained, can require the determination of minute length differences.

The appellant's argument that the exclusion of loose loops in the frontside warp yarns required only that these yarns had to be woven so as to extend entirely straight in warp direction, whereas backside warp yarns had to be woven so as to comprise additional curvature, in order to satisfy the requirement of feature **o** and o', is unconvincing. It may be possible to conceive a corresponding method for particular extreme cases (large length surplus in the backside warp yarns, and frontside warp yarns always extending straight), but this is not a method that is valid over the entire scope of the claim (frontside warp yarns may present curvature, hence bending under a weft yarns). The indications in paragraph 20 of the patent relate to a shrinkage of the entire fabric due to a particular difference in weave tightness. The relative shrinkage of the entire fabric (comparing its extension or length on the loom to its extension or length after removal) cannot replace the need to distinguish between loose and non-loose loops in respective backside and frontside warp yarns. Moreover, the claim is not limited to any such particular method.

14.1 The Board therefore concludes that the invention of claim 1 of auxiliary request MR_M_S4_D4 does not meet the requirement of Article 83 EPC. Consequently, the appellant's request for maintenance of the patent in amended form according to this auxiliary request cannot be allowed.

Remaining auxiliary requests

15. The Board decided to not admit any of the other auxiliary requests (except those discussed in the oral proceedings and considered here above) submitted with the statement of the grounds of appeal and with the

appellant's letter dated 19 May 2025, for the following reasons.

15.1 During the oral proceedings the appellant had elected to deviate from the order in which the auxiliary requests were to have been considered originally according to its written submissions and confirmed at the beginning of the oral proceedings (see above points III. and VI. of the Facts and Submissions and points 9. and 12. of the Reasons). The change of the order of the requests is an amendment to the appellant's appeal case within the meaning of Article 13 RPBA and may be admitted only under the conditions set out in paragraphs 1 and 2 thereof. It is noted here that, although this was not questioned, the appellant's appeal case is determined not only *inter alia* by the facts and arguments put forward in regard to each request, but also the order in which these are presented by the appellant, not least due to reasons of procedural economy.

15.2 In the present case, auxiliary requests AR_S1 and AR_S2 are directed again to a product claim. These requests therefore lack convergence with the subject-matter of auxiliary request MR_M_S4_D4 directed to an amended method claim.

15.3 Similarly, all of the following auxiliary requests, which again comprise a product claim with different amendments also lack convergence with MR_M_S4_D4:

AR_D1 to AR_D4,
AR_S1_D1 to AR_S4_D1
AR_S1_D4 to AR_S4_D4
AR1 to AR15,

AR1_S4_D4 to AR15_S4_D4.

15.4 Also auxiliary request MR_M, which comprises only the granted method claim lacks convergence with auxiliary request MR_M_S4_D4, since *inter alia* the features o' and o" added in the latter have been omitted.

15.5 This lack of convergence is contrary to the required need for procedural economy according to Article 13(1) RPBA.

Also, the Board had stated that it provisionally considered the amendments in auxiliary requests AR_S1 and AR_S2 to lack clarity within the meaning of Article 84 EPC. The appellant did not submit any further comments in its subsequent letter dated 19 May 2025 nor during the oral proceedings on this aspect. The additional amendments made in the auxiliary requests indicated above in point 15.3 were, furthermore, not intended to remedy the objection of insufficiency of disclosure (see the last column in the table on pages 2 to 4 of the appeal grounds for the purpose of the respective amendments).

Taking into account all circumstances, the Board exercised its discretion under Article 13(1) RPBA not to admit the auxiliary requests referred to in points 15.2, 15.3 and 15.4 (which were now presented as a newly ordered set of requests, even if the same initial numbering was maintained).

15.6 Auxiliary requests AR_S1_D2 to AR_S4_D2, AR1_M to AR15_M and AR1_M_S4_D4 to AR15_M_S4_D4 had only been announced in the appeal grounds but had not actually been filed, as indicated in the Board's communication pursuant to Article 15(1) RPBA. In reply to that

communication, the appellant did not submit any comment on this aspect or any corresponding request.

These requests are therefore not part of the appeal proceedings (Article 12(3) RPBA).

15.7 The auxiliary requests submitted with the appellant's letter dated 19 May 2025 (see above Facts and Submissions, point VI.) were filed after the Board's communication under Article 15(1) RPBA. According to Article 13(2) RPBA, they may only be taken into account if there are exceptional circumstances, which have been justified with cogent reasons.

The Board cannot see any exceptional circumstances in the present case which could justify the consideration of these requests.

15.7.1 The reasons given by the appellant in its accompanying letter for justifying the admittance of auxiliary request AR_S5 essentially rely on the contention that the Board followed in its preliminary opinion an aspect of the reasoning given by the opposition division in its written decision in regard to the then pending auxiliary request 3 (AR_S3 in the appeal), which aspect was allegedly not discussed before the opposition division.

15.7.2 This argument means however that already when filing its appeal grounds the appellant was aware of the particular reasoning which was invoked later also by the Board. In fact, the appellant submitted auxiliary request AR_S4 with its statement of grounds of appeal as a reaction to the allegedly new aspect in the impugned decision and referred essentially to the same reasons for its admittance in the proceedings as for

the later filed auxiliary request AR_S5 (see section IV.E on page 23 of the appeal grounds). There are therefore no particular circumstances in the appeal proceedings which would have arisen for the first time from the Board's preliminary opinion to justify such late-filing. Also, no reasons have been given why the auxiliary request submitted only with the letter of 19 May 2025 could not have been filed with the appeal grounds.

15.7.3 The fact that the Board provisionally considered auxiliary requests AR_S3 and AR_S4 to contravene Article 123(2) EPC for the same aspect of the reasons considered prejudicial for auxiliary request 3 of the impugned decision, following thereby the allegedly new aspect in the impugned decision (see point 4.4 of the Board's preliminary opinion), are not exceptional circumstances. Parties should always be prepared for the possibility that the Board is not convinced by their arguments and instead follows an argument relied upon in the impugned decision.

15.7.4 A new aspect in the reasoning of a written decision to which a party negatively affected by the corresponding part of the decision had not been heard may have different consequences for the appeal proceedings. It may indeed even lead to an immediate remittal of the case to the first instance department, due to a substantial procedural violation according to Article 113(1) EPC. In less serious cases, like the present, it may justify the admittance of new claim requests not submitted before the opposition division, provided that such amendments are, *inter alia*, filed at the earliest point in time, which is generally with the statement of grounds of appeal or the reply (see Articles 12(3) and (4) RPBA). In the present case, the relevant allegedly

new consideration ("omission of tension differential due to removal and/or washing") in the impugned decision concerned one aspect out of two dealt with in the context of an objection under Article 123(2) EPC raised against the then pending auxiliary request 3, which request had been filed during the oral proceedings before the opposition division. The other one of the two aspects ("at least one" in feature h of product claim 1) was undisputedly discussed during the oral proceedings (see section IV.E on page 23 of the appeal grounds), so that this further consideration (second aspect) could not amount to a substantial procedural violation which could have justified another course of action (e.g. immediate remittal).

15.7.5 To the extent that the appellant's argument relied on a particular interpretation of the passage on page 16, which passage was cited as the basis for the feature added in auxiliary request 3 underlying the impugned decision (AR_S3 in appeal), the Board notes that this interpretation was introduced by the appellant itself in the letter of 19 May 2025, rather than being an issue raised by the respondent in its reply or by the Board in its preliminary opinion. This argument therefore cannot justify the presence of exceptional circumstances.

15.7.6 The previous considerations also apply to all other auxiliary requests based on AR_S5 and submitted with the letter of 19 May 2025. The appellant also did not submit any further argument in this respect.

15.7.7 Absent exceptional circumstances, the Board decided not to take into account any of the auxiliary requests submitted with said letter, i.e. AR_S5, AR_M_S5, AR_M_S5_D1, AR_M_S5_D4, and AR1_M_S5_D4 to

AR15_M_S5_D4.

Auxiliary requests AR_S5_D1, AR_S5_D4, were only announced in that letter, but were not filed. These requests, which would anyway not have been admissible for the same reasons as given above, are therefore not part of the appeal proceedings (Article 12(3) RPBA).

16. In the absence of any set of claims which meets the requirements of the EPC, the appellant's appeal cannot be allowed and must be dismissed.

Request for reimbursement of the appeal fee

17. As set out in the the Board's communication pursuant to Article 15(1) RPBA, a prerequisite for the appellant's request for reimbursement of the appeal fee is that the appeal is deemed allowable by the Board (Rule 103(1)(a) EPC). The appellant did not submit any further comments in this regard.

For the reasons set out above, the appeal is not allowed so that the request for reimbursement of the appeal fee is refused.

For the sake of completeness it is noted that the appellant did not argue that the alleged errors committed in the division's exercise of discretion amounted to a substantial procedural violation which could have justified remittal of the case to the opposition division. Based on the circumstances invoked by the appellant to have occurred in the opposition proceedings and reported in the appeal grounds in section V.D (pages 28 to 32), the Board can also not see that this would have been the case.

Request for remittal

18. As also acknowledged by the appellant in its letter dated 19 May 2025 (last page), in the absence of any request which would at least meet the requirements of Articles 83, 84 and 123(2) EPC, there is no basis upon which the proceedings could be further prosecuted. The request for remittal of the case to the opposition division is therefore refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Grundner M. Harrison

Decision electronically authenticated