

Internal distribution code:

- (A) [-] Publication in OJ
- (B) [-] To Chairmen and Members
- (C) [-] To Chairmen
- (D) [X] No distribution

**Datasheet for the decision
of 15 March 2022**

Case Number: T 1185/19 - 3.2.06

Application Number: 11819918.1

Publication Number: 2610377

IPC: D03D15/00, B60R21/235,
D03D1/02, D06M15/643, D06N3/00

Language of the proceedings: EN

Title of invention:
BASE FABRIC FOR AIRBAG

Patent Proprietor:
Asahi Kasei Kabushiki Kaisha

Opponent:
Toyobo Co., Ltd.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 56
RPBA Art. 12(4), 12(2)
RPBA 2020 Art. 13(2), 13(1)

Keyword:

Inventive step - main request (no) - auxiliary request 1 (no)
Late-filed auxiliary requests 2 to 9 - admitted (no) -
auxiliary requests 12 and 13 - justification for late filing
(no)

Amendments - auxiliary requests 10 and 11 - added subject-
matter (yes)

Statement of opponent's grounds of appeal - reasons set out
clearly and concisely (yes)

Referral to the Enlarged Board of Appeal - admissibility (no)

Decisions cited:

T 0097/00

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1185/19 - 3.2.06

D E C I S I O N
of Technical Board of Appeal 3.2.06
of 15 March 2022

Appellant: Asahi Kasei Kabushiki Kaisha
(Patent Proprietor) 1-105 Kanda Jinbocho
Chiyoda-ku
Tokyo
101-8101 (JP)

Representative: D Young & Co LLP
120 Holborn
London EC1N 2DY (GB)

Appellant: Toyobo Co., Ltd.
(Opponent) 2-8, Dojima Hama 2-chome
Kita-ku
Osaka-shi
Osaka 530-8230 (JP)

Representative: Vossius & Partner
Patentanwälte Rechtsanwälte mbB
Siebertstrasse 3
81675 München (DE)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
22 February 2019 concerning maintenance of the
European Patent No. 2610377 in amended form.**

Composition of the Board:

Chairman M. Harrison
Members: P. Cipriano
W. Ungler

Summary of Facts and Submissions

- I. Appeals were filed by the opponent and the proprietor against the interlocutory decision of the opposition division, in which it found that European patent No. 2 610 377 in an amended form according to the (then) auxiliary request 31a met the requirements of the EPC. Since both parties are appellants, they will be referred to as 'the opponent' and the '(patent) proprietor' respectively in the following.
- II. The opponent requested that the decision under appeal be set aside and the patent be revoked.
- III. The patent proprietor requested that the decision under appeal be set aside and the patent be maintained according to the main request, or that the patent be maintained in amended form on the basis of auxiliary requests 1 to 11.
- IV. The following documents are relevant for the present decision:
- D2** Flow chart of the production and distribution chain of prior use Product A and Product B
- D5** "Cargo Receipt/Delivery Specification" of Chuo Warehouse and its English translation D5a
- D6** Test data of airbag base fabrics (prior use Product A-A and A-B) and its English translation D6a
- D15** Statement of Mr. Masataka Adachi and its English translation D15a
- D18** Statement of Mr. Takeo Kashima and its English translation D18a
- D27a** English translation of Table 2 of JP 2012-052280 A (D27)

- D31** Partial copy from "First course in Fiber"; Faculty of Textile Science and Technology, Shinshu University published on 25 July 2008 and its English translation D31a
- D33** Matsumura Sen'i Gakkaishi (2004) Vol. 60 pages 275-277 and its English translation D33a
- D34** Handbook of Technical Textiles: Technical Textile Applications 2nd Edition, Horrocks, R. , Anand , S., Oxford: Woodhead Publishing. Copyright 2016
- D35** article "Airbags" in "Textile Progress", 45:4, 209-301 published on 21 March 2014
- D46** Copies of Delivery Notes and their English translation D46a
- D69** Declaration of Tashiro Nagaoka

- V. The Board issued a summons to oral proceedings and a subsequent communication, in which it indicated *inter alia* that the subject-matter of claim 1 of the main request and of auxiliary request 1 did not seem to involve an inventive step, that the Board was minded to exclude auxiliary requests 2 to 9 from the proceedings (Article 12(4) RPBA 2007) and that claim 1 of auxiliary requests 10 and 11 did not seem to fulfil the requirement of Article 123(2) EPC.
- VI. With letter dated 28 February 2022 the proprietor filed three questions to be referred to the Enlarged Board of Appeal.
- VII. With letter dated 14 March 2022 the proprietor filed further auxiliary requests 12 and 13.
- VIII. Oral proceedings by videoconference took place before the Board on 15 March 2022.

At the end of the oral proceedings the final requests of the parties were as follows:

The patent proprietor requested that the decision under appeal be set aside and the patent be maintained according to the main request or according to one of auxiliary requests 1 to 11, all filed with letter of 2 July 2019, or on the basis of one of auxiliary requests 12 and 13, filed with letter of 14 March 2022, whereby auxiliary request 10 meant that the opponent's appeal be dismissed. Furthermore, the appellant (patent proprietor) requested that the opponent's appeal be rejected as inadmissible. Moreover, it requested that the three questions indicated on page 9 of its submissions of 28 February 2022 be referred to the Enlarged Board of Appeal.

The opponent requested that the decision under appeal be set aside and the patent be revoked.

IX. Claim 1 of the main request reads as follows:

"A base fabric for an airbag, comprising a woven fabric constituted of a multifilament synthetic yarn having a total fineness of 200 to 550 dtex and a single filament fineness of 2.0 to 7.0 dtex, wherein a nylon 66 having a boiling water shrinkage percentage of 7.3 to 13% is used as the yarn for weaving the fabric, the elongation of the base fabric according to JIS L 1096 8.14.1a is, on average of warp direction and weft direction, from 5 to 15% and from 15 to 30% under loads of 50 N/cm and 300 N/cm, respectively, the pullout resistance of the multifilament synthetic yarn, which is measured by a method described in paragraph [0038] (6) of the description of the present invention, is from 50 to 200 N/cm/cm on average of warp and weft, and wherein the base fabric does not have a resin coat; and wherein the

strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft."

Claim 1 of auxiliary request 1 differs from claim 1 of the main request in that the following feature has been appended at the end of the claim:

"and wherein the dynamic air permeability after loading of 100 N/cm on the stitched boundary portion sewn together by the following specific sewing, which is measured by a method described in the description of the present invention, is 2,300 mm/s or less at a differential pressure of 50 kPa:

Specific sewing: two sheets of base fabric are lock-stitched at 50 stitches/10 cm by using a twisted yarn of 1,350 dtex."

Claim 1 of auxiliary request 10 reads:

"A process of preparing a base fabric for an airbag, comprising a woven fabric constituted of a multifilament synthetic yarn having a total fineness of 200 to 550 dtex and a single filament fineness of 2.0 to 7.0 dtex, wherein the elongation of the base fabric according to JIS L 1096 8.14.1a is, on average of warp direction and weft direction, from 5 to 15% and from 15 to 30% under loads of 50 N/cm and 300 N/cm, respectively, the pullout resistance of the multifilament synthetic yarn, which is measured by a method described in the description of the present invention, is from 50 to 200 N/cm/cm on average of warp and weft, and wherein the base fabric does not have a resin coat; and wherein the strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft; said process comprising providing a yarn for weaving the fabric to provide the woven fabric that is

subsequently dried and heat set and which is finished without scouring, and wherein the shrinkage amount and tension are controlled in the width of the woven fabric and the direction of the warp yarn respectively, and wherein the heating temperature is 170°C or more and wherein cooling is performed immediately after heat treatment by keeping the tension, said yarn being a nylon 66 having a boiling water shrinkage percentage of 7.3 to 13%; and preparing said base fabric from said yarn."

Claim 1 of auxiliary request 11 differs from claim 1 of auxiliary request 10 in that it is directed to "A process of preparing a base fabric for a side curtain airbag".

- X. The proprietor's arguments relevant to the present decision may be summarised as follows:

Main request - Article 56 EPC

Prior use A - public availability

The evidence provided by the opponent was not up to the necessary standard of proof "up to the hilt", noting that all the evidence provided was in the sphere of the opponent.

It was not contested that base fabric according to prior uses A-A and A-B was stored in Chuo Warehouse Co. But this was insufficient evidence to prove that the fabric was publicly available. There was no evidence that Shimizu had ever sold the base fabric. In the automotive sector there was at least an implicit confidentiality agreement until a sale occurred (see

D69) such that it was for the opponent to prove the opposite.

The opponent was only the yarn manufacturer and was therefore not in a position to know whether the other companies involved in the production and distribution process of an airbag module had an established confidentiality among themselves or not as is the case in declarations D15/D15a and D18/D18a.

Prior use A in combination with common general knowledge/D31

The claim feature relating to the boiling water shrinkage (BWS) of the original yarn was also a limiting and distinguishing feature of the resulting base fabric.

The new arguments based on D33a-D35 related to the deployment speeds of general purpose airbags and curtain airbags and should be admitted into proceedings.

The objective problem solved by the feature "the strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft" (in combination with the other features of claim 1) was to allow a faster deployment speed of an airbag.

The technical problem of providing an alternative strength of the multifilament synthetic yarn resulted from applying an ex post facto analysis and was not credible. Other parameters might lead to the airbag breaking even with an increased strength of the constituent yarn.

Auxiliary request 1 - Article 56 EPC

The proprietor did not make any specific arguments relating to inventive step of the first auxiliary request starting from the prior use A.

Admittance of auxiliary requests 2 to 9

The auxiliary requests 2, 3, 5, 7 and 9 contained amendments that were not surprising and the remaining requests 4, 6 and 8 corresponded to requests already present in the opposition proceedings and were thus admissible.

Auxiliary request 10 - Substantiation of the opponent's appeal

The opponent's appeal provided minimal or no reasoning as to why the opposition division erred in its decision on the points it contested under Articles 84, 123(2), 123(3) and 56 EPC and was therefore not sufficiently substantiated.

Auxiliary request 10 and 11 - Article 123(2) EPC

Claim 1 of auxiliary requests 10 and 11 fulfilled the requirement of Article 123(2) EPC. The amendments to claim 1 found basis in paragraphs [0025] and [0026], which listed several optional possibilities regarding scouring, heating and cooling of the fabric. No unallowable selection of features or intermediate generalization was made as the process features added to claim 1 were not inextricably linked to each other.

Admittance of auxiliary requests 12 and 13

Auxiliary requests 12 and 13 were *prima facie* allowable, overcame all the objections regarding Articles 123(2) and 56 EPC and did not introduce complexity. In addition, they constituted a direct response to the preliminary opinion of the Board and to the new arguments regarding the objective technical problem made by the appellant during the oral proceedings.

- XI. The opponent's arguments relevant to the present decision may be summarised as follows:

Main request - Article 56 EPC

Prior use A - public availability

The evidence presented was enough to demonstrate public availability beyond reasonable doubt. D5a and D46 demonstrated that large quantities of base fabric were shipped to several customers, i.e. well before in 2008 and 2009 the priority date of 23 August 2011.

The statements in D69 regarding implicit secrecy that base fabrics for airbags and their properties were not publicly known do not refer to public availability in the sense established by the EPC and the case law of the Boards of Appeal. The level of difficulty and expertise required to disassemble an airbag module was not a criteria to establish whether the base fabric was publicly available or not.

Prior use A in combination with common general knowledge/D31

The subject-matter of claim 1 did not involve an inventive step.

The BWS parameter was a property of the original yarn to be woven that did not distinguish the claimed fabric from the prior art. The only relevant differing feature for assessing inventive step was the feature "the strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft".

The proprietor had presented arguments at the oral proceedings for the first time relating to the deployment speeds of general purpose airbags and curtain airbags, relying on D33a-D35. These arguments were late-filed and should be excluded from the proceedings.

The increase in deployment speed was only the general purpose of the invention and was not derivable specifically from the strength of the constituent yarn. Paragraph [0029] discussed avoiding breakage of the airbag but the examples of the invention in the patent showed that this was not achieved simply by increasing the strength of the constituent yarn to more than 7,5 cN/dtex. There was no specific effect associated with this parameter or the specific value of 7,5 cN/dtex. The objective problem was thus only to provide an alternative value for the strength of the constituent yarn.

The skilled person looking for an alternative would increase the strength of the constituent yarn from 7,4 to at least 7,5 cN/dtex in an obvious way using common general knowledge as shown in D31. Such a minor increase in strength did not noticeably change the

characteristics of the airbag in a way that it could alter its performance/characteristics.

Auxiliary requests 2 to 9 - Article 12(4) RPBA 2007

Auxiliary requests 2 to 9 should have been filed during the opposition proceedings.

Auxiliary request 10 - Substantiation of the opponent's appeal

The opponent's appeal contained the reasons as to why the decision of the opposition was considered incorrect and why it should be overturned. The length of the grounds of appeal was irrelevant.

Auxiliary requests 10 and 11 - Article 123(2) EPC

The proprietor had selected the process features added to claim 1 of auxiliary request 10 from paragraphs [0025] and [0026], which contained a list of optional process steps. This particular selection of features resulted from multiple selections from this list and this combination of selections was not directly and unambiguously disclosed.

Admittance of auxiliary requests 12 and 13

Auxiliary requests 12 and 13 were filed on the day before the oral proceedings and the opponent had not had adequate time to consider them. There was no justification for filing these requests at such a late stage of the proceedings.

Reasons for the Decision

1. Although the opponent had argued that the requirement of Article 123(2) EPC was not met, the Board finds that the subject-matter of claim 1 of the main request does meet the requirement of Article 123(2) EPC. However, no detailed reasoning is required for this finding since the main request is not allowable for the following different reasons:
2. Prior use A - public availability
 - 2.1 The Board finds that the two fabric samples A-A and A-B of the airbag base fabric LTA203 (denoted as LTA203LS after refinement processing) were publicly available before the priority date and thus belong to the prior art according to Article 54(2) EPC.
 - 2.2 It was not contested by the proprietor that the yarn supplied by Toyobo Co. Ltd was woven into a base fabric at Shimizu Co. and stored at Chuo Warehouse Co as depicted in the flowchart D2. The proprietor argued instead, during the oral proceedings before the Board albeit this had not been contested during the written phase of the appeal procedure (see also the Board's communication under Article 15(1) RPBA 2020, item 2.12) that there was no evidence that Shimizu Co. had ever sold the base fabric and that there was at least an implicit secrecy agreement between Toyobo Co. Ltd, Shimizu Co., Chuo Warehouse Co. and the recipients of base fabric stored in the warehouse, namely Seiren Aucus, Toyoda Gosei, Ashimori Industry, Nikkou Rubber and Nihon Plast. It also argued that statement D69

showed that in the automotive sector there was at least an implicit confidentiality agreement until a sale occurred. There was also no declaration from any airbag module manufacturer stating that a confidentiality agreement did not exist.

2.2.1 The Board does not find these arguments convincing. The cargo receipts D5 and D46/D46a show that several deliveries of large quantities of base fabric from the warehouse to Seiren Aucus (an airbag producer) among other recipient airbag producers took place as early as April 2008 (the priority date of the contested patent being 23 August 2010). Although no purchase receipts were filed demonstrating a money transaction had been made, the Board finds that the large quantities of fabric delivered could not reasonably have been supplied and used only for prototypes and pre-series runs and that the deliveries were thus at least meant to be used for the commercial serial production of airbag modules, not least due to the regular transactions which occurred between the companies. Although the proprietor suggested that the recipients could perhaps have been stockpiling, the large amounts and repeated regular deliveries to several companies goes against any such conclusion being reached, and even more so when considering normal commercial practice.

2.2.2 In such a serial production phase of the airbags, the Board also cannot see any plausible reason for the companies involved to have had a secrecy agreement, since the airbags were destined to be mounted on production vehicles and sold to third parties/end customers which are under no secrecy obligations concerning the vehicle or its components.

2.2.3 Turning to the declaration D69 which the proprietor used as evidence to show that implicit secrecy was normal in the automotive industry, this states in paragraphs 8 and 9 that "airbag base fabrics are handled under implicit secrecy obligations" and that "its technology was not made freely available at any stage".

However, D69 includes the explanation in paragraphs 11 to 13 that "airbags and their properties are not publicly known", that "it is not normal for customers to disassemble an airbag" and that "once an airbag module is obtained in the market, the public cannot access, let alone analyse, the base fabric for the airbag in the airbag module" and that for these reasons "the technology for a base fabric for an airbag in the automotive industry is under implicit secrecy and is even more so not made freely available at any stage", the latter expression being the same as used in paragraphs 8 and 9.

By stating in paragraph 12 that the technology of an airbag obtained in the market and thus in possession of the public is "under implicit secrecy and not made available at any stage" shows that the declarant is not aware of the conditions for public availability which are applied in the Boards case law, where it is not necessary to prove that an analysis of an airbag module has actually been carried out, but only that the airbag module has been made accessible to persons who are not bound to any secrecy agreement regardless of the technical skills required to do such an analysis.

2.3 The Board thus finds that the base fabric LTA203LS that had been shipped from the warehouse to several airbag module manufacturers for serial production since April

2008 was made available to the public before the priority date and constitutes prior art under Article 54(2) EPC.

3. Main request - Article 56 EPC

3.1 The proprietor did not contest that the two samples "Product A-(A)" and "Product A-(B)" of the prior use A sent to the Fukui Test Center and discussed in D6/D6a were from the base fabric LTA203LS. The Board also sees no reason to conclude otherwise.

3.2 It was also not contested by the parties that Table (2) on page 3 of D6a shows that Product A-(B) is a base fabric comprising all the features of claim 1 of the main request with the exception of the features:

- a boiling water shrinkage percentage of 7.3 to 13% is used as the yarn for weaving the fabric [feature (2.2) according to the claim breakdown presented by the opponent on page 3 of its reply to the proprietor's grounds of appeal], and

- the strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft [feature (6) according to the same claim breakdown mentioned above].

The parameter boiling water shrinkage (BWS) of the yarn used for weaving the fabric

3.3 The proprietor argued that BWS defined in feature (2.2) of the claim was a limiting and distinguishing feature of the product, in that BWS of the yarn used for constituting the fabric was an important parameter that affected the mechanical properties of the resulting

woven base fabric independently of the other process parameters applied, as seen in D27. According to the proprietor, although the BWS of the original yarn could indeed not be reverse-engineered ("unshrunk"), this did not change the fact that the BWS became a property of the base fabric since it was an intrinsic property of the yarn that had an effect on the final product.

- 3.4 The Board does not find these arguments convincing. The influence which BWS of the raw yarn has on the properties of the final, i.e. heat-treated, fabric is inextricably linked to the processing parameters, such as the temperature and the duration of exposure to that temperature, the presence of water or dry heat, to the number of heat treatment steps and the presence or absence of mechanical restrictions against shrinkage imposed on the fabric during heat treatment. Example 1 and comparative examples 4 and 5 of D27 disclose that the BWS of the yarn might have an effect on the properties of the base fabric (see example 1 and comparative example 4 which differ solely on the BWS), namely that it affects the deployment speed and the restraint time. However, these effects are not inextricably linked to the BWS and can be also obtained e.g. by changing the heat-set conditions, as seen for example in comparative example 5 of D27. The claim would thus have to include all the process parameters required for unambiguously defining the product of such processes in a way which is limiting for the product of the claim.

- 3.5 The range of BWS of the raw yarn defined in feature (2.2) cannot be directly linked to one or several technical product properties of the final fabric with constituent yarns in the sense that measurement of a

distinct and identifiable fabric parameter could lead to a conclusion about the original BWS of the raw yarn.

Without a direct unequivocal relationship between a property of the fabric and the BWS of the raw yarn, it is also not possible to establish the BWS of the raw yarn from the woven fabric.

3.6 Therefore, although the BWS of the raw yarn may have a potential effect on the properties of the final fabric, the BWS shrinkage of the original raw yarn is no longer an identifiable feature present in the fabric (i.e. the yarns of the fabric have already been shrunk and woven) and thus cannot (retroactively) constitute a limiting feature of the final fabric which is the subject-matter of claim 1.

3.7 Feature (2.2) will thus not be taken into into consideration for the assessment of inventive step.

Prior use A-(B) in combination with common general knowledge/D31

3.8 For the assessment of inventive step it is therefore only relevant that prior use A-(B) differs from the subject-matter of claim 1 by feature (6), i.e. the strength of the multifilament synthetic yarn is 7.4 (instead of 7.5) cN/dtex or more on average of warp and weft.

3.9 During the oral proceedings before the Board, the proprietor referred *inter alia* to selected passages of D33a, D34 and D35 in its argument about which objective technical problem was being solved when applying the problem/solution approach starting from the prior use A-(B). However, since these documents and the cited

passages were mentioned for the first time during the oral proceedings, these constitute late-filed facts which involve a change of the proprietor's appeal case. The opponent also objected that there was no cogent reason to have waited until the oral proceedings to rely on such evidence and that it had no time to study the documents and prepare a reasoned response. Indeed, no cogent reasons were given by the proprietor as to why it had waited with such facts and arguments until the oral proceedings. Instead the proprietor argued that it was simply referring to what it considered to be common general knowledge. In the absence of cogent reasons for the late citation of these documents and the particular extracts from these, and noting the opponent's objection to their introduction, the Board exercised its discretion under Article 13(2) RPBA 2020 not to take D33a, D34 and D35 as well as the corresponding arguments involving these documents into account.

- 3.10 The proprietor argued that this feature had the effect of allowing a faster deployment speed. As could be derived from paragraphs [0001], [0002], [0003], [0006], [0015] and [0019] of the patent specification, curtain airbags were placed in a different location of the car much closer to the occupant and needed to deploy faster than "normal" airbags (in around 20 instead of 50 ms), i.e. airbags mounted in the dashboard for frontal impacts.

The Board does not find these arguments persuasive. Whilst the patent discloses in the referenced paragraphs that curtain airbags are required to deploy at higher speeds (see for example paragraph [0006], lines 46 and 47), none of the features defined in claim

1 of the main request restricts the subject-matter of claim 1 to a curtain airbag.

- 3.11 Further, under the problem-solution approach the objective problem is usually established by identifying the technical effect(s) resulting from the differing feature(s) in relation to the closest prior art and formulating the corresponding technical problem(s). In the present case, the Board sees no reason to deviate from this practice.
- 3.12 Increasing the strength of the multifilament synthetic yarn in relation to the airbag of the prior use A-(B) is seen as increasing the tenacity of the base fabric. This is also confirmed by paragraph [0029] of the patent specification. The resulting objective technical problem is thus seen as being the provision of an alternative tenacity that also endures the stress at the deployment of the airbag.
- 3.13 The proprietor argued that this resulted from applying an *ex post facto* analysis and, citing the Case Law Book, sections I.D.9.11 and III.G.5.1.2 b) and T 97/00, considered that this problem was not credible and that it was for the proprietor to present the objective problem and its effects. Comparative examples 3, 5, 8 and 9 of the patent showed that the airbag could still break with base fabrics having a strength of the constituent yarn above 7.5 cN/dtex or more on average of warp and weft. It was the combination of all features of claim 1 that was required to achieve the desired effect of a faster deployment.

The Board does not find any contradiction between its reasoning regarding the objective problem above and the cited passages of the Case Law book and T 97/00 and

does not take issue with the process claimed leading to the advantageous effects mentioned in the patent and cited by the proprietor.

Specifically, the Board does not dispute that the airbags of the comparative examples 3, 5, 8 and 9 broke despite having a strength of the constituent yarn above 7.5 cN/dtex or more on average of warp and weft.

As stated in paragraphs [0044], [0046], [0048] and [0049] of the patent, if the single filament fineness of the original yarn or total fineness of the constituent yarn is small or the pullout resistance is too large, the airbag may still break. Since other parameters may possibly lead to the rupture of the airbag, a strength of the constituent yarn above 7.5 cN/dtex does not provide the effect of avoiding an airbag rupture. This effect is also not part of the objective problem discussed above under item 3.12.

However, the same applies to the possible objective problem of having a faster deployment suggested by the proprietor. The Board does not dispute that a fast deployment results from the combination of at least several (if not all) parameters mentioned in the patent. However, this is more of a "general purpose" applicable to the patent and indeed of airbag base fabrics and not the specific effect of increasing the strength of the constituent yarn to above 7.5 cN/dtex envisaged in the patent specification (see paragraph [0029]).

The objective technical problem discussed in item 3.12, whilst less ambitious, does not provide any pointer to the solution, such that it does not arise from any the benefit of hindsight knowledge of the invention.

Moreover, no specific effect has been disclosed for the particular value of 7.5 cN/dtex and it is, as the opponent argued, seemingly only one of the possible values that the strength of the constituent yarn may have to endure the stress at the deployment of the airbag. Thus the value of 7.5 also does not imply any particular boundary where a different effect might occur and can not be regarded as anything more than an arbitrary selection among possible appropriate values.

3.14 Wanting to provide an alternative tenacity that endures the stress at the deployment of the airbag, the skilled person would find it obvious to increase the strength of the constituent yarn to above 7.5 cN/dtex or more on average of warp and weft in order to solve the problem posed. The translation D31a of excerpt of the textbook D31 also refers to the fact that a "woven fabric is broken when its constituting yarns are broken" such that it is self-evident that increasing the strength of the constituent yarns would provide an alternative tenacity that also endures the stress at the deployment of the airbag when starting from one which already has this capability. In the same way, increasing it to above 7.5 cN/dtex (e.g. to a value of 7.6 cN/dtex or above) would likewise be expected to produce the required tenacity.

3.15 As discussed above under item 3.13 and argued by the proprietor, other parameters may lead to the airbag breaking even with an increased strength of the constituent yarn. However, the Board finds that, starting from a strength of the constituent yarn of 7.4 cN/dtex of the prior use A-(B), the skilled person knows that an increase of one tenth cN/dtex (from 7.4 to 7.5) is very small in the sense that this change

alone would not change the other parameters of the base fabric to any noticeable extent nor affect the performance of the base fabric noticeably, for example by increasing the deployment time as the proprietor argued. Indeed, no evidence was provided that such a small change would have any such effect, nor is it credible that this would be the case.

3.16 The skilled person starting from the prior use A-(B) and seeking an alternative tenacity would thus increase the strength of the constituent yarn to e.g. 7.5 cN/dtex (or more) and arrive at the subject-matter of claim 1 without exercising an inventive step.

3.17 For the reasons stated above, the subject-matter of claim 1 does not involve an inventive step. The main request is therefore not allowable.

4. Auxiliary request 1 - Article 56 EPC

4.1 It was not contested by the proprietor that D6a disclosed the prior use fabric A-(B) having a dynamic air permeability (DAP) of 1488 mm/s and thus of less than 2300 mm/s using the same measurement method as defined in claim 1. The proprietor also made no further arguments in defence of this request.

4.2 Since the prior use A-(B) also discloses the added feature, the subject-matter of claim 1 of auxiliary request 1 does not involve an inventive step for the same reasons as apply to claim 1 of the main request discussed above under item 3. Auxiliary request 1 is therefore not allowable.

5. Admittance of auxiliary requests 2 to 9

5.1 During the opposition proceedings, the main request and auxiliary request 1 were discussed in the first oral proceedings before the opposition division and auxiliary requests 1a and 31 were discussed in the second oral proceedings before the opposition division.

In those second oral proceedings, the proprietor had requested initially that the order of discussion of the auxiliary requests be auxiliary request 1a, 5, 31 and 31a (see page 1, item 1 of the minutes dated 22 February 2019) with the remainder of the 35 auxiliary requests on file being discussed later in an unspecified order (presumably numerical order). Later during the second oral proceedings, the proprietor requested "to continue with AR31 instead of AR5" (see page 4, item 6, first paragraph of the minutes), which was then found allowable by the OD.

5.2 The proprietor filed auxiliary requests 1 to 11 with its grounds of appeal, its main request and auxiliary request 1 corresponding to auxiliary requests 1 and 1a during the opposition proceedings and auxiliary request 10 corresponding to auxiliary request 31 during the opposition proceedings (i.e. the request which the opposition division found allowable). The auxiliary requests 2 to 9 now on file are either new or correspond to auxiliary requests that were ranked below (present) auxiliary request 10, which was found allowable.

5.3 The proprietor argued that the new auxiliary requests 2, 3, 5, 7 and 9 contained amendments that were not surprising and that the remaining requests 4, 6 and 8 corresponded to requests already present in the opposition proceedings and were thus allowable.

- 5.3.1 However, the Board does not find these arguments persuasive. Regardless of whether the amendments are surprising or in some way not surprising, these new requests are not justified by e.g. any unexpected turn of events during the opposition proceedings and could (and should) have been filed during the opposition proceedings.
- 5.3.2 In addition, by promoting certain lower ranking requests to a ranking back above the request allowed by the opposition division when filing its grounds of appeal, the proprietor has in essence prevented the opposition division from giving a reasoned decision on various issues in those requests, thereby compelling the Board either to give a first ruling on those issues or to remit the case to the opposition division to do so, which is contrary to the principle of procedural economy and the main role of the Boards in providing a review in a judicial manner (see e.g. Article 12(2) RPBA 2020).
- 5.4 The Board thus exercised its discretion under Article 12(4) RPBA 2007 to exclude auxiliary requests 2 to 9 from the proceedings.
6. Auxiliary request 10 - Substantiation of the opponent's appeal
 - 6.1 The proprietor argued that the opponent's appeal provided minimal or no reasoning as to why the opposition division had erred in its decision on the points under Articles 84, 123(2), 123(3) and 56 EPC, and was therefore not sufficiently substantiated.
 - 6.2 The Board is not persuaded by this argument. As can be seen from several passages of its grounds, e.g. items

4.1 to 4.3, 5.1, 5.3 or 7.5, the opponent refers to several sections of the decision under appeal and refutes the findings with its arguments. Merely as one example, items 4.1 to 4.3 of the grounds of appeal refer to items 27.2 and 27.3 of the impugned decision on the aspect of clarity, and the opponent takes up what the opposition division has reasoned and gives reasons why the opposition division's conclusion is considered to be incorrect. Even on the basis of a substantiated clarity objection alone, the opponent's appeal is admissible. The opponent nevertheless in e.g. item 5 of its appeal grounds addresses the opposition division's reasoning on Article 123(2) EPC.

In regard to the arguments given, the Board also has no difficulty following the arguments of the opponent. Its arguments also cannot be considered "minimal" in the sense that they do not allow the Board to establish the reasons why it is requested that the decision under appeal be reversed.

The proprietor's reliance on established case law to show that the decision itself has to be reasoned, in its reference to the Case Law of the Boards of Appeal, 8th Edition, English Version page 536, and that when the decision is reasoned the opponent must do more than continue its previous arguments, does not affect the foregoing since the opponent has indeed addressed the reasons in the decision.

The proprietor's further argument that the appeal grounds were minimal compared to the opponent's reply to the proprietor's appeal (the proprietor referring to this as "exploding the appeal grounds into a 74 page reply") does not address the admissibility of the opponent's appeal; the opponent's 74 page reply was

primarily addressing the proprietor's appeal and thus the requests and arguments upon which the proprietor was making its appeal case and which was itself 77 pages in length.

6.3 The Board thus finds that the opponent's appeal is substantiated and admissible.

7. Auxiliary requests 10 and 11 - Article 123(2) EPC

7.1 Claim 1 of auxiliary request 10 was amended compared to the main request and auxiliary request 1 to be directed to a process including *inter alia* the following process features:

- providing a yarn for weaving the fabric to provide the woven fabric that is subsequently dried and heat set and which is finished without scouring, and wherein the shrinkage amount and tension are controlled in the width of the woven fabric and the direction of the warp yarn respectively, and wherein the heating temperature is 170°C or more and wherein cooling is performed immediately after heat treatment by keeping the tension, ~~said yarn being a nylon 66 having a boiling water shrinkage percentage of 7.3 to 13%~~; and preparing said base fabric from said yarn.

7.2 The proprietor argued that the amendments to claim 1 find basis in paragraphs [0025] and [0026], which list several optional possibilities regarding scouring, heating and cooling of the fabric. No unallowable combination of selected features or intermediate generalization had been made as the process features added to claim 1 were not inextricably linked to each other and could be added to claim 1 without creating an intermediate generalization.

The Board does not accept these arguments. The Board can concur with the proprietor that the specific features of paragraphs [0025] and [0026] are not all inextricably linked to each other and sometimes are even mutually exclusive. Nevertheless, to arrive at the specific combination of process features added to claim 1 of auxiliary request 10, several selections from a list of possible process steps described in these paragraphs and comprising even more possibilities are necessary. For example, claim 1 defines that the woven fabric is finished without scouring. This feature comes from a list of possible process features in paragraph [0025] but paragraphs [0025] and [0026] also describe, for example, that an appropriate adhesion amount of an oil component may also be allowed to remain and that the tension heat treatment is preferably a method that allows tension processing under control of the tension in the warp and weft directions, "such as tenter method" (see page 18, line 26). None of these features from the list have however been added to claim 1. Consequently a selection of features has to be made and these selected features then have to be combined with further features present in the claims. No pointers or guidance for same is given to the skilled person to make such selections and combinations.

- 7.3 For example, no basis can be found for combining the selected features with the lower value of the BWS range from paragraph [0022] as well as with the features of originally filed claims 1, 6, 8, 10 and 11, as was already stated in the Board's communication under Article 15(1) RPBA 2020, in item 6.2. Since no other basis was given for arriving at the combination of features in claim 1, the Board finds that there is no direct and unambiguous disclosure of the combination of

the particularly selected features with each other or with the remaining features in claim 1.

7.4 At least for this reason, claim 1 of auxiliary request 10 does not fulfil the requirement of Article 123(2) EPC. Auxiliary request 10 is thus not allowable.

7.5 Claim 1 of auxiliary request 11 differs from claim 1 of auxiliary request 10 only in that it is directed to "a process of preparing a base fabric for a side curtain airbag" instead of "a process of preparing a base fabric for an airbag" as claim 1 of auxiliary request 10.

7.6 As already stated in its preliminary opinion, the Board finds that this amendment only emphasizes the suitability of the fabric to be used in a side curtain airbag since none of the claimed method steps is specific for the base fabric of a side curtain airbag. Directing the claimed process to a specific type of airbag does not solve the Article 123(2) EPC problem discussed for claim 1 of auxiliary request 10. The proprietor also did not argue that it did.

7.7 The subject-matter of claim 1 of auxiliary request 11 does not fulfil the requirement of Article 123(2) EPC for the same reasons as apply to claim 1 of auxiliary request 10. Auxiliary request 11 is thus also not allowable.

8. Admittance of auxiliary requests 12 and 13

8.1 Auxiliary requests 12 and 13 were filed with letter dated 14 March 2022, one day before the oral proceedings of this appeal proceedings.

- 8.2 According to Article 13(2) RPBA 2020, "[a]ny amendment to a party's appeal case made ... after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned".
- 8.3 The respondent argued that the requests were *prima facie* allowable, overcame all the objections regarding Articles 123(2) and 56 EPC and did not introduce complexity. In addition, they constituted a direct response to the preliminary opinion of the Board and to the new arguments regarding the objective technical problem made by the opponent during the oral proceedings.
- 8.3.1 The Board is not persuaded that these are exceptional circumstances justified by cogent reasons that would result in the Board taking these new requests into account. The Board pointed out in item 2.16 of its communication that it did not consider it to be credible that the feature "the strength of the multifilament synthetic yarn is 7.5 cN/dtex or more on average of warp and weft" could give rise to any unexpected improvement compared to the fabric of the prior use A, but this opinion was not something new in the case as it relied directly on the response of the opponent (see item 3.4.5 a) on page 37 of the opponent's reply) that the tenacity of the fabric of Product A did not require any optimization in order to achieve a particular effect that would be associated with the limit of 7.5 cN/dtex, which was arbitrarily drawn for the claimed yarn strength.

To this, the proprietor had argued in its letter dated 28 February 2022 (see "Annexes 15 to 19", pages 5 and

6) and in the oral proceedings that all the examples denoted a rapid deployment and non-burst in comparison to the comparative examples. The Board finds thus that it is simply a normal development that could not have come earlier that the opponent doubts this argument from the proprietor and argues that rapid deployment is achieved by all the features of the fabric and not specifically by the differing feature F6.

8.3.2 In addition, the Board notes that whether the requests are *prima facie* allowable in the sense that they may overcome all the objections regarding Articles 123(2) and 56 EPC and do not introduce complexity, are requirements related to procedural economy and thus criteria falling under Article 13(1) RPBA 2020. However, the requirements of Articles 13(1) and 13(2) RPBA 2020 are cumulative at this stage of the proceedings such that the Board does not see a need to assess whether the request additionally fulfils the requirements of Article 13(1) RPBA 2020 if the criteria of Article 13(2) RPBA 2020 are not met.

8.4 The Board finds that no exceptional circumstances justified by cogent reasons have been presented which justify the filing of new auxiliary requests after the notification of the summons to oral proceedings. In accordance with Article 13(2) RPBA 2020, the Board thus exercised its discretion not to take auxiliary requests 12 and 13 into account.

9. In the absence of an allowable request, the patent must be revoked.

10. Request for a referral of questions to the Enlarged Board of Appeal

10.1 The proprietor stated (on page 9 of its letter dated 28 February 2022) the following:

"In addition to the requests currently on file, we herewith make the additional request in direct response to the comments made in §1 of the Preliminary Opinion of the Board of Appeal, in particular those made in §1.1.2 to §1.1.4.

Should the Board of Appeal be still minded to not allow the patentee to rely on the interplay of the claims as filed to provide a framework basis for the claims as granted (which were then amended with the MR etc) - then we request that each or both of the following questions are advanced to the Enlarged Board of Appeal before the Board of Appeal rules against the patentee in this matter.

Questions for the Enlarged Board of Appeal
Q1... "

10.2 This request concerned whether the requirement of Article 123(2) EPC in respect of claim 1 of the main request was met, as this was the issue addressed in item 1 ("§1") of the preliminary opinion. Since the Board found that claim 1 met the requirement of Article 123(2) EPC (see item 1 above), and no mention was made of these questions being of any relevance in relation to any other requests, a referral of the proprietor's questions to the Enlarged Board was not necessary since it was not relevant for the decision to be taken by the Board.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



D. Grundner

M. Harrison

Decision electronically authenticated