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**Datasheet for the decision
of 26 February 2008**

Case Number: T 0908/05 - 3.3.09

Application Number: 01987713.3

Publication Number: 1332046

IPC: B32B 27/12

Language of the proceedings: EN

Title of invention:

Waterproof breathable layered article with high mechanical strength

Applicant:

Geox S.p.A.

Opponent:

-

Headword:

-

Relevant legal provisions:

-

Relevant legal provisions (EPC 1973):

EPC Art. 54, 123(2)

EPC R. 88

Keyword:

"Main Request: Amendments - not allowable"

"First Auxiliary Request: Amendments - allowable

Novelty - yes"

"Remittal"

Decisions cited:

G 0003/89, G 0011/91

Catchword:

Reasons 2.4, 2.4.1



Case Number: T 0908/05 - 3.3.09

D E C I S I O N
of the Technical Board of Appeal 3.3.09
of 26 February 2008

Appellant: Geox S.p.A.
Via Feltrina Centro, 16
I-31044 Montebelluna Località Biadene
(Treviso) (IT)

Representative: Modiano, Micaela Nadia
Dr. Modiano & Associati SpA
Via Meravigli 16
I-20123 Milano (IT)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 10 February 2005
refusing European application No. 01987713.3
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P. Kitzmantel
Members: N. Perakis
M-B. Tardo-Dino

Summary of Facts and Submissions

- I. European patent application No 01987713.3 in the name of NOTTINGTON HOLDING B.V (now Geox S.p.A.) filed as PCT/EP01/11835, claiming priority from the IT application No PD2000A000244 of 19 October 2000 and published as WO 02/32662, was refused by decision of the Examining Division orally announced on 13 January 2005 and issued in writing on 10 February 2005.
- II. The decision was based on Claims 1 to 5 filed with the letter dated 10 December 2004. Claim 1 reads as follows:

"1. A waterproof breathable layered article, comprising: at least one membrane made of hydrophilic polymer; and a substrate, to which said membrane is coupled, and which is permeable to water and comprises fibers for materials which are technologically per se known as composites, and which has an ultimate elongation of substantially 5% or less and a breaking load of substantially 1000 N or more, said substrate being formed by layers made of fibers of carbon and/or glass and/or polypropylene and/or polyester woven with different orientations: weft, warp, oblique; and said substrate has the form of a lattice constituted by bands of woven and impregnated fibers which leave air passage spaces."

During the examination proceedings the following documents were *inter alia* cited:

D1: US 4 554 198

D2: Internationales Lexikon "Textilveredlung +

Grenzgebiete", 4th edition, 1975, page 2078, entry
"Zugfestigkeit"

E1: EN ISO 13934-1, February 1999

The Examining Division refused the patent application on the ground that Claim 1 did not meet the requirements of Article 123(2) EPC.

In particular, the Examining Division held that the characterisation of the substrate by a "breaking load of substantially 1000 N or more" (emphasis by the Board) did not find support in the originally filed application because the term "breaking load" was undisclosed therein and could also not be considered as an allowable correction under Rule 88 EPC 1973. The Examining Division argued that: (i) as set out in G3/89 and G11/91, the EPC did not foresee the reliance on the disclosure of priority documents for corrections of errors; (ii) the explicit reference in the description of the refused application to the priority document was no basis for the requested correction either, since that reference did not contain "a pointer ... that the correct definition is to be found in the document mentioned"; and (iii) the general technical knowledge of the skilled person did not unambiguously provide the requested correction.

III. On 7 April 2004 the Applicant lodged an appeal against the decision of the Examining Division and paid the appeal fee on the same day.

In the Statement setting out the grounds of appeal filed on 6 June 2005, the Appellant requested that the decision of the Examining Division be set aside and a

patent be granted on the basis of the documents on which the impugned decision was based.

As to the reasons in the decision under appeal, the relevance of D2 was contested, which was old and as such obsolete, and which furthermore did not concern the extremely thin sheet materials of the claimed invention, the measurement of the breaking stress of which was unreliable owing to their variable thicknesses. In contrast, it would have been evident to the skilled person on the basis of E1, account being taken of the Appellant's own mathematical calculations showing that a breaking stress of 1000 N per sample cross-section was unrealistic, that the only reasonable possibility for correction of the passage in dispute was the amendment of "breaking stress" to "breaking load".

IV. In a communication dated 16 October 2007, accompanying the summons to oral proceedings to be held on 26 February 2008, the Board gave its preliminary opinion which essentially concurred with the one expressed in the decision under appeal.

V. In a reply to that communication, the Appellant, with the letter dated 26 December 2007, filed two auxiliary requests. It also submitted **E4** (Extract from Oxford Illustrated Dictionary, 2nd edition, 1975, page 838, entry "stress") and argued that according to this document the term stress also implied a force or a load.

VI. In a further communication dated 22 February 2008, the Board announced its intention to have all relevant issues discussed at the oral proceedings so that a final decision could be reached.

VII. Oral proceedings were held before the Board on 26 February 2008. At those proceedings the Appellant submitted **E1'**, a full copy of the previously submitted partial copy of European Standard ISO 13934-1 : 1999 (E1). Furthermore, it withdrew its auxiliary requests filed with the letter dated of 26 December 2007, while maintaining its Main Request, comprising the claims on which the decision of the Examining Division had been based, and finally filed a (new) first Auxiliary Request which comprised three Claims.

Claim 1, the sole product claim, of the first Auxiliary Request reads as follows:

"1. A waterproof breathable layered article, comprising at least one membrane made of hydrophilic polymer characterized in that said membrane is coupled to a substrate which is permeable to water and comprises fibers for materials which are technologically per se known as composites, said hydrophilic polymer being polyurethane based on polyether and/or polyester, said substrate being formed by layers made of fibers of carbon and/or glass and/or polypropylene and/or polyester woven with different orientations: weft, warp, oblique; the fibers of the substrate are impregnated with resins such as phenolic resins, polyurethane resins, epoxy resins, natural or synthetic rubbers which are designed

to transmit the load to the entire set of fibers, impregnation being such as to avoid creating a compact layer in order to avoid compromising breathability."

VIII. The Appellant requested that the decision be set aside and that a patent be granted on the basis of Claims 1 to 5 of the Main Request as filed on 10 December 2004, or alternatively, on the basis of Claims 1 to 3 of the first Auxiliary Request as filed during the oral proceedings.

IX. The relevant arguments presented by the Appellant in its written submissions and at the oral proceedings may be summarized as follows:

- The skilled person in the art was theoretically confronted with two correction possibilities: one in which the correction of the obvious error would concern the amendment of the measuring unit for breaking stress from the "wrong" unit N (Newton) to N/area, the other one in which the correction of the obvious error would concern the amendment of the ("wrong" property) breaking stress to breaking load while maintaining the measuring unit N (Newton).
- The first possibility, that the error lay in the units of the breaking stress, was technically impossible because a breaking stress of 1000 N/m^2 , such as that referred to in the claimed invention, applied to a standard specimen of a substrate having, according to E1 (page 9, paragraph 8.2), a length of 200 or 100 mm and a constant width of 50 mm and, according to D1 (column 2, lines 1-3), a thickness of about $100 \mu\text{m}$, would correspond to a breaking load of 0,5 g. However, such a low breaking load would

mean that the claimed material was friable and unable to solve the problem of the claimed invention.

- Thus the skilled person in the art would not have even the slightest doubt that the first possibility was absurd and devoid of any practical use, and for all practical purposes should be ignored as non-existent, with the consequence that the only choice valid for any technical purpose was the one to correct the obvious error in the manner done by the Appellant.
- Furthermore, the person skilled in the art confronted with the description of an article manufactured by an industry of the European Union, which contained the expressions "breaking stress" or "breaking load", knew that it was implicit that these mechanical properties are measured by tests performed according to international standards valid in the EU in the relevant technical field, here the field of membranes and films. In the present case, the Standard ISO 13934 (E1/E1') was therefore to be applied.
- According to ISO 13934-1 : 1999 (E1'), the standard in force at that time, the breaking stress was never considered as property to be measured for materials of the above type, i.e. very thin sheets. For such materials E1' prescribed the determination of maximum force (load) expressed in Newton (N).
- Document D2, cited by the Examining Division, apart from the fact that it dated back to the year 1975 and for this reason might even be considered as obsolete, mainly dealt with yarns, even if webs were also mentioned, and was therefore not applicable to extremely thin sheet materials, such as films, foils or substrates of the kind considered in the refused

application, the cross-sectional areas of which were highly variable under stress.

- The reason for the above conclusion being that in the case of very thin sheet materials the position was contrary to what was asserted by D2, in that breaking stress was an unreliable property - owing to the difficulty of reliably measuring the variable thickness of such materials - while breaking load was the property of choice.
- Furthermore, D2 taught that the breaking stress (or tensile strength at break) should usually, but not always, be measured in terms of a force related to a unit area; furthermore, according to D4 the term "stress" could also relate to a "force" or a "load".
- But even if - following D2, which stated that the common unit to be used for expressing tensile strength was kg/mm^2 - the skilled person would have assumed that in the present case an area denominator was missing, and for that reason would have considered correcting the breaking stress from "1000 N" to " 1000 N/mm^2 ", he would have realised that this value was not realistic for the claimed materials. He would thus have concluded, based on D2, that the expression "1000 N" set out in the present application referred to a load, namely to a breaking load.
- The content of the priority document, which was a document incorporated by reference into the description of the refused patent application, should be considered as part of its disclosure. The fact that the document incorporated by reference happened to be the priority document was irrelevant for its pertinence as reference. In the present case only the aspect of providing information was

significant. The benefit of that information was that the person skilled in the art was given an implicit pointer to the correction of the obvious error. It was reasonable to expect that the skilled person would look into the incorporated document for the information he might need.

Reasons for the Decision

1. The appeal is admissible.

The Main Request

2. Amendment under Article 123(2) EPC

This issue is raised because the applicant's request for correction under Rule 88 EPC was rejected by the Examining Division.

- 2.1 The subject-matter of Claim 1 of the Main Request comprises the substrate feature of "a breaking **load** of substantially 1000 N or more". (emphasis by the Board)
- 2.2 However, this feature does not find support in the content of the application as filed, where the corresponding disclosure is directed to a "breaking **stress**".
- 2.3 Nor does the Board concur with the Appellant who argued that the claimed feature is allowable under Article 123(2) EPC on the ground that it resulted from the

obvious correction of an error under Rule 88, second sentence, EPC 1973.

- 2.3.1 In fact, the replacement of "breaking stress" by "breaking load" cannot be considered as of a strictly declaratory nature. According to the principle set out in G3/89 (OJ 1993, 117, point 3) and G11/91 (OJ 1993, 125, point 3), the parts of a patent application may be corrected under Rule 88 EPC **only** within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge and seen objectively and relative to the date of filing, from the whole of these documents as filed.
- 2.3.2 Of course, the Board does not dispute the fact that the skilled reader would immediately realise that the originally filed substrate feature "a breaking stress of substantially 1000 N or more" is faulty because of the inconsistency of the property "breaking stress" and the unit "Newton" - stress relating to force per area, eg N/m^2 , and N being the measurement unit for force alone.
- 2.3.3 What the Board, however, takes issue with is that the requested correction is obvious in the sense that it is immediately evident that nothing else would have been intended than what is offered as correction. The reason for this is that the incorrect information in the originally filed patent application can be corrected in two alternative manners: **either** by replacing the term "breaking stress" by "breaking load", i.e. assuming that the used unit was correct and that the error lay in the measured mechanical property, **or** by replacing the unit "Newton" by "Newton/area", i.e. assuming that

the measured physical property was correct and that the error lay in the unit used.

- 2.3.4 Nevertheless, the Board does not find any hint in the content of the application as filed favouring one rather than the other of the alternatives.
- 2.3.5 Nor does the Board consider that the general technical knowledge of the person skilled in the art would lead to the exclusion of one of the alternatives. The Board makes particular reference to D2, which discloses that since the breaking load itself has no comparative value, it is usually given in relation to a cross sectional area and expressed in Kg/mm^2 . In the Board's view, the skilled person in the light of D2 would rather tend to consider that the unit N (Newton) needs correction. This consideration is not affected by the fact that D2 was published in 1975, since it has not been contradicted by more recent evidence. The more recent Standard EN ISO 13934-1 (E1/E1'), put forward by the Appellant, does not contradict D2; it simply discloses the incontestable fact that breaking load is expressed in N.
- 2.3.6 The Board is also not convinced by the calculations filed by the Appellant with the letter dated 6 June 2005 in an attempt to show that a breaking stress of 1000 N/m^2 , a value not disclosed in any document in these proceedings, was technically unrealistic because it corresponded to a breaking load of 0,5 g. In the Board's judgment, the Appellant's calculations are essentially based on *ex post facto* considerations relying on arbitrary combinations of features from D1, E1/E1' and the patent application.

2.3.7 The Board thus concludes that the requested correction is not obvious because it is not immediately evident that nothing else would have been intended than what is offered as a correction.

2.4 Furthermore the Board does not accept that the feature "breaking load", which is allegedly disclosed in the form of its Italian equivalent "carico di rottura" in the priority document cross-referenced in the description (page 6, lines 18-19), is *prima facie* part of the content of the application as filed.

2.4.1 To the Board's understanding the last sentence in the description "The disclosures in Italian Patent Application No. PD2000A000244 from which this application claims priority are incorporated by reference" is vague and unspecific with regard to any precise information in the document addressed and does not contain any guidance for the skilled reader that could be understood as encouraging him to investigate this document with the purpose of finding there a way to overcome the missing basis in the original application documents for the term "breaking load". Therefore this reference cannot serve as basis for the incorporation of that feature into the content of the application as filed in that it does not lead the skilled person in the direct and unambiguous way required by Rule 88 EPC to the desired "correction".

But even if it did, the result of such an incorporation would not lead to an unambiguous disclosure because then the different terms "breaking load" and "breaking stress" would stand side by side, giving rise to

problems of inconsistency and lack of clarity under Article 84 EPC (see points 2.3.3 ; 2.3.4 and 2.3.5).

- 2.5 In view of the above, the subject-matter of Claim 1 does not fulfil the requirements of Article 123(2) EPC and the Main Request is not allowable.

The first Auxiliary Request

3. Article 123(2) EPC

The subject-matter of Claim 1 of the first Auxiliary Request is a combination of the subject-matter of originally filed Claims 1, 2, 4 and 6. The subject-matter of Claim 2 corresponds to that of originally filed Claim 10. The subject-matter of Claim 3 corresponds to that of originally filed Claim 11. Consequently, the requirements of Article 123(2) EPC are met.

4. Novelty

- 4.1 The waterproof breathable layered article of Claim 1 is novel over D1 (column 1, line 58 to column 2, line 31; column 3, lines 37-47; examples 1 to 3), the only document considered as relevant for the novelty issue by the Examining Division during the examination phase.

The Board considers that the claimed article differs from the one disclosed by D1:

- (a) in that the substrate is formed by more than one layer whereas D1 discloses only one layer,
- (b) in that the layers are woven comprising oblique fiber orientation whereas D1 discloses

conventional textile (i.e. woven only in the weft and warp orientations),

- (c) in that the fibers constituting the layers are impregnated with resins and rubbers whereas D1 discloses that an impregnation of the coated fabric is carried out afterwards with a fluorocarbon compound,
- (d) in that the impregnation is carried out in a way "designed to transmit the load to the entire set of fibres" and
- (e) avoiding the creation of a compact layer.

4.2 As the product of Claim 1 is novel, the alternative methods for its manufacture of Claims 2 and 3 are also novel.

4.3 Thus the subject-matter of Claims 1 to 3 satisfies the requirements of Article 54 EPC.

5. Remittal

5.1 During the oral proceedings before the Board the Appellant indicated that the technical problem, the claimed invention was supposed to solve, was the provision of a waterproof breathable article with improved mechanical characteristics which did not compromise its breathability.

The Board concurs with the Appellant's submission in view of the disclosure of the technical problem in the description of the patent application (page 2, lines 21-25; page 4, lines 2-4 and 7-10).

5.2 Furthermore the Board considers D1 to represent the closest state of the art in comparison with the other documents cited by the Examining Division during the examination phase. The reason is that D1 also discloses waterproof breathable layered articles whose composition is very similar to those claimed.

5.3 However, the Board refrains from taking a final decision on whether or not the distinguishing features of the subject-matter of Claim 1 would be obvious to the skilled person over the entire prior art in the proceedings. The reason is that the claimed combination of features was submitted for the first time at the oral proceedings before the Board of Appeal with the consequence that the Examining Division has never had the opportunity to consider it, especially not in the light of prior art other than D1.

One of the questions to be considered when assessing inventive step of this newly claimed subject-matter is whether the distinguishing features cooperate in solving the set technical problem or whether they are to be considered as a mere aggregation of measures intended to reinforce the substrate without compromising the breathability of the claimed layered article.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance for further prosecution on the basis of Claims 1 to 3 of the first Auxiliary Request filed during the oral proceedings.

The Registrar:

The Chairman:

G. Röhn

P. Kitzmantel