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# Datasheet for the decision of 19 March 2009

**Case Number:** T 0668/07 - 3.2.03

**Application Number:** 99941502.9

**Publication Number:** 1102958

**IPC:** F41H 1/02

**Language of the proceedings:** EN

**Title of invention:**
Stab resistant material

**Patentee:**
Teijin Twaron GmbH, et al

**Opponent:**
Honeywell International Inc.

**Headword:**
-

**Relevant legal provisions:**
-

**Relevant legal provisions (EPC 1973):**
EPC Art. 123(2)(3), 54, 56, 100(b)
EPC R. 57a

**Keyword:**
"Admissibility of amended claims (yes)"
"Amendments - added subject-matter (no)"
"Amendments - broadening of claim (no)"
"Novelty (yes)"
"Inventive step (yes) - present over whole scope of claim (yes) - exclusion of hindsight insufficiency of disclosure (no)"

**Decisions cited:**
T 1002/92

**Catchword:**

-

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**Case Number:** T 0668/07 - 3.2.03

# D E C I S I O N
**of the Technical Board of Appeal 3.2.03**
**of 19 March 2009**

**Appellant:** (Opponent)
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**Decision under appeal:** **Interlocutory decision of the Opposition Division of the European Patent Office posted 16 February 2007 concerning maintenance of European patent No. 1102958 in amended form.**

**Composition of the Board:**

**Chairman:** U. Krause
**Members:** G. Ashley
K. Garnett

## Summary of Facts and Submissions

I. European patent EP-B-1 102 958 concerns a stab-resistant material. Grant of the patent was opposed on the grounds of lack of novelty and inventive step (Article 100(a) EPC), and lack of sufficient disclosure (Article 100(b) EPC). The Opposition Division concluded that the set of claims filed during the oral proceedings as the patent proprietors' main request met the requirements of the EPC, and thus decided that the patent should be maintained on the basis of these claims.

II. The decision was posted by the Opposition Division on 16 February 2007. The Appellant (opponent) filed notice of appeal on 23 April 2007, paying the appeal fee on the same day. A statement containing the grounds of appeal was filed on 25 June 2007. Oral proceedings were held on 19 March 2009.

III. Requests

The Appellant requests that the decision be set aside and that the patent be revoked.

The Respondents (patent proprietors) request that the appeal be dismissed.

IV. Claims

Claim 1 reads as follows:

"1. Stab-resistant material made from at least one laminate consisting of two woven fabrics laminated

together with a polymer film such that the two woven fabrics are joined via the polymer film, whereby the fabrics comprise yarns with a tensile strength of at least 900 MPa and the polymer film joining the fabrics has a tensile strength of at least 10 MPa, characterized in that the polymer film joining the fabrics has a flexural modulus of 1500 to 4500 MPa."

Dependent claims 2 to 6 concern preferred embodiments of the stab-resistant material of claim 1. Claims 7 to 10 define a stab-resistant package containing layers of the claimed material, and claim 11 relates to the use of the claimed stab-resistant package in the manufacture of clothing.

V. State of the Art

The following documents were considered by the Opposition Division and are of relevance for this decision:

D1: WO-A-97/21334
D3: US-A-5 677 029
D5: 1991 Data Sheets for three grades of CAPRON polymer (CAPRON 1860F, 390FN and 8207F).

VI. Submissions of the Parties

(a) Rule 57a EPC 1973

The Appellant submits that the amendment of granted claim 1 to specify that the stab-resistant material is made from at least one laminate is not required in order to overcome the prior art. Reference is made by

the Appellant to the response to the notice of opposition, in which the patent proprietors state that the amendment is to make the claims "more precise". This, according to the Appellant, shows that the amendment was made for clarity purposes, contrary to Rule 57a EPC 1973.

The Respondents argue that the amendment is a limitation made in response to the Opponent's submission that the subject-matter of granted claim 1 lacks novelty with respect to D3, and in particular the allegation that Figure 2 of D3 shows a material made from at least two woven fabric layers joined together by a polymer film. That the claim is "more precise" relates to an amendment emphasising the distinction over D3 rather than clarification of the claim itself.

(b) Article 123 EPC

The Appellant argues that the application as originally filed (WO-A-00/08411) and the granted patent concern a stab-resistant material which functions as such when just two fabrics are joined by a single polymer film. The amendment to claim 1 now means that this requirement is no longer necessary, as something made from the laminate rather than the laminate itself is defined as being stab-resistant. There is no basis in the original application for a laminate that is not stab-resistant, and since the amendment now includes stab-resistant material made from a number of non stab-resistant laminates, the scope of the claim has been broadened; the amendment is therefore contrary to Articles 123(2) and (3) EPC.

The view of the Respondents is that the amendment amounts to a limitation in that the two woven fibre layers are not only joined via the polymer film, but are also laminated together. The step of laminating is disclosed in the original application (dependent claim 2), and thus fulfils the requirements of Articles 123(2) and (3) EPC.

(c) Novelty (Article 54 EPC)

The Appellant alleges that the claimed subject-matter lacks novelty in light of D3, which concerns a material having improved penetration resistance, and hence is stab-resistant. The fibrous and polymer layers material are laminated together (column 4, lines 44 to 45 and example 2). The lamination of two fabric layers via a polymer layer is disclosed in the embodiment shown in Figure 2, which is described in column 3. At lines 45 to 46 of column 3 it is stated that, "Layers 12a includes two layers (*sic*) fibrous layers 14a and polymeric layer 16a,…". The paragraph continues (lines 50 to 52) "the layer 12 includes at least one layer 14 and one layer 16." Thus, it is clear that two fibrous layers and a polymer layer are present in the embodiment shown in Figure 2.

D3 discloses (column 18, line 66 to column 19, lines 4) that the adhesive material, which relates to the polymer used as the polymeric layer, has a tensile modulus of less than 41.3 MPa, and this meets the requirement "of at least 10 MPa" given in claim 1. D3 also states (column 13, lines 37 to 41) that the polymer modulus that determines the flexibility of the article is less than about 103 MPa. However, the

"modulus" referred to here is not the flexibility modulus *per se*, but is the tensile modulus. This interpretation is supported by example 2, which describes the use of a nylon 6 (Caprolan ®) film as the polymer; data sheets (D5) show this polymer as having a tensile strength of about 85 MPa and a flexural modulus of about 2825 MPa, both of which meet the requirements of claim 1 and which correspond with the disclosure in column 12 as meaning the tensile modulus.

The reply of the Respondents is that D3 is directed to ballistic-resistant rather than stab-resistant materials, and although penetration resistance is mentioned, this does not take into account the cutting action of a knife, which is a necessary feature of a stab-resistant material. The laminates of D3 are made up of two layers, one fibre and one polymer, with the embodiment in Figure 2 showing five such laminates. These laminates are joined by stitching, bolts, rivets, adhesive, staples and the like (D3, column 3, lines 58 to 64), and thus are not bonded together so that two fibre layers are laminated via a polymer layer. This is also emphasised by example 2 of D3, in which five fabric/polymer layers separated by release paper are laminated.

The Respondents also argue that D3 does not disclose the feature that the polymer film has a tensile strength of at least 10 MPa. The passage cited by the Appellant (column 18, line 66 to column 19, line 4) refers to "tensile modulus" rather than "tensile strength".

D3 fails to disclose polymer films having a flexural modulus in the range 1500 to 4500 MPa. It is clearly stated (column 13, lines 37 to 40) that the modulus that determines the flexibility of the article is equal to or less than 103 MPa. Although this might be in contradiction to the use of a nylon film in example 2, the clear teaching of D3 is that the polymer film has a modulus of flexibility well below the claimed range.

(d) Inventive Step (Article 56 EPC)

Scope of the Claim:

The Appellant submits that claim 1 is so broad that a large number of materials which fall within its scope would fail to solve the problems relied upon by the Respondents to justify an inventive step, namely the improvement in stab-resistance and wearing comfort (paragraph [0003] of the disputed patent). For example, polystyrene meets the criteria set out in claim 1, but because of its brittle nature (elongation at break of only 2%), it has a very low stab resistance. Polycarbonate would also be included, but is so inflexible that it would be impossible or extremely uncomfortable to use it in clothing.

The Respondents submitted that the allegation that certain materials do not provide the required benefits is not supported by any evidence and is therefore purely speculative. In particular, there is no evidence that polystyrene is unsuitable when it is laminated with woven fabrics. Improved comfort for the wearer is not a question of flexibility but also relates to

weight of the material, and by improving the stab-resistance, fewer layers are needed to make the garment.

Documents D3 and D1:

The Appellant referred to example 2 of D3, which discloses a laminate made from one fibre layer and one polymer layer, whereas claim 1 requires two fabric layers laminated via a polymer layer. Starting from D3, the problem to be solved is how to improve the stab-resistance whilst maintaining wearer comfort, and in seeking a solution the skilled person would turn to D1.

D1 explains that an important aspect of stab resistance is the prevention of fibres from being pushed apart, and this can be achieved by bonding the fibres with a polymer (D1, page 1, lines 18 to 23 and page 2, lines 3 to 6). In addition, D3 (column 26, lines 9 to 10) teaches that lamination increases stab resistance. The skilled person is thus clearly motivated to experiment with lamination. The function of the fabric is to provide strength, and it is apparent that more material will improve the strength. Given that any improvement in strength must not be detrimental to wearer comfort, the skilled person would immediately think of having just one polymer layer in the middle of two fabric layers, thereby saving on polymer layers. D1 does not explicitly mention reduction in weight, but this is an obvious requirement, given that the application of the material is for clothing. Consequently, compared with D3, the arrangement of layers defined in claim 1 is an obvious step.

The Respondents position is that D3 relates to the ballistic properties of the material, with the examples directed to showing better ballistic protection; D3 provides no teaching about improving stab-resistance. There is no teaching in D3 to provide a laminate of two layers of fabric bonded via a polymer film, and in turning to D1, the indication there is that an improvement in stab resistance is brought about by using a polymer having certain mechanical properties, in particular a flexural modulus of 42 to 1000 MPa, ie significantly lower than the claimed value. The claimed subject-matter cannot be derived in an obvious manner from D3 with or without D1.

(e) Sufficiency of Disclosure (Article 100(b) EPC)

During the opposition proceedings the objection under Article 100(b) EPC was based on the alleged inability to determine the flexural modulus of the polymer film. In the appeal proceedings the Appellant based the same ground of objection on the fact that claim 1 requires yarns to have a tensile strength of at least 900 MPa and a polymer to have a tensile strength of at least 10 MPa. According to the Appellant this means that the polymer film and the yarns may be of the same material, with one indistinguishable from the other; it is therefore not possible for skilled persons to know whether or not they are working within the scope of the claim. Furthermore, the patent does not teach how to make products of the required stab resistance from the broad range of component materials disclosed in the patent specification, and hence over the whole area claimed.

The Appellant explained that the change in line of argument resulted from the change in representatives, who brought fresh minds to the case. Given the highly relevant nature of this objection, and the public interest in not having invalid patents in force, the new submissions should be allowed into the procedure.

The Respondent objected to the admission of the Appellant's submission into the proceedings, but nevertheless argued that the skilled person would realise that it is unrealistic to have a single block of polymer, as all of the properties of the stab-resistant material would then be lost. All of the parameters given in claim 1 can be easily measured, and paragraphs [0020] and [0021] of the disputed patent give detailed information on how to produce the material of claim 1. Even if the submissions were allowed into the proceedings at this late stage, the objection under Article 100(b) EPC would be unfounded.

## Reasons for the Decision

1. The appeal is admissible.

2. *Rule 57a EPC 1973*

Rule 57a EPC 1973 (Rule 80 EPC 2000) allows amendment of a European patent provided that the amendment is occasioned by a ground of opposition specified in Article 100 EPC, even if the respective ground has not been invoked by the opponent.

Claim 1 of the granted patent defines a " Stab-resistant material made from at least two woven fabrics joined together via a polymer film…". During the opposition procedure, this claim was amended to specify that the "stab-resistant material is made from at least one laminate consisting of two woven fabrics laminated together with a polymer film such that the two woven fabrics are joined via the polymer film…". The Appellant considers that the amendment is not occasioned by one of the grounds of opposition given in Article 100 EPC and hence is contrary to Rule 57a EPC 1973.

The amendment was put forward by the Respondents/Patent proprietors in their reply to the notice of opposition, arguing that, although D3 discloses a material made up of layers, each one consisting of a woven fabric and a polymer film, the amended claim 1 is distinguished from D3 in that it is limited to layer(s) of laminate(s) consisting of two woven fabrics joined by a polymer film.

The amendment was therefore made in response to the allegation that the subject-matter of the granted claim lacked novelty over D3. Since lack of novelty is a ground for opposition under Article 100(a), there is no objection under Rule 57a EPC 1973 to the amendment.

3. *Article 123 EPC*

The Appellant argues that the application as originally filed and the granted patent specification disclose a stab-resistant material that functions as such when just two fabrics are joined by a single polymer film.

The amendment to claim 1 now means that this requirement is no longer necessary, as something made from the laminate is defined as being stab-resistant rather than the laminate itself. The amendment is thus said to fall foul of Article 123(2) EPC as there is no basis in the original application for a laminate that is not stab-resistant. In addition, the amended claim covers stab-resistant material made from a number of non-stab resistant laminates, and hence the scope of the claim has been broadened contrary to Article 123(3) EPC.

Claim 1 of the original PCT application (WO-A-00/08411) defines a stab-resistant material made from at least two woven fabrics joined together via a polymer film. Dependent claim 2 and the paragraph bridging pages 4 and 5 of the PCT application disclose lamination of the two fabrics with a polymer film and the making of a material from various numbers of laminates. The features of the amendment can thus be derived from the application as originally filed, in accordance with Article 123(2) EPC.

The present claim 1 requires the material to be made from at least one laminate, ie it includes a single laminate, and a single laminate consists of two fabrics joined via the polymer film, as is defined in granted claim 1. On this basis there is no increase in the scope of the claim contrary to Article 123(3) EPC.

There is no basis for the distinction that two fabrics joined by a polymer film is stab-resistant, whereas a laminate made of the same layers is not, as was suggested by the Appellant.

The amendment therefore meets the requirements of Article 123 EPC.

4. *Novelty (Article 54 EPC)*

4.1 The Appellant submits that the claimed subject-matter lacks novelty over D3. Document D3 is directed to ballistic resistant fabric articles, which are also said to have penetration resistance against a threat such as a knife or an ice pick (column 3, lines 16 to 18). Although the Respondents argue that stab resistance implies a resistance to cutting in addition to penetration, it is clear from the above citation that D3 concerns material that is intended to be stab-resistant, even if it is not expressly mentioned as such.

4.2 Claim 1 requires that the stab-resistant material is made from at least one laminate consisting of two woven fabrics laminated together with a polymer film such that the fabrics are joined via the polymer film.

The embodiment shown in Figure 2 of D3 has alternate layers of fibrous and polymer material, which according to the Appellant meets the requirement of claim 1. The relevant passage in the description (column 3, lines 45 to 46) reads "Layers 12a includes two layers fibrous layers 14a and polymeric layer 16a, …". This sentence is not written clearly, but when read in combination with Figure 2, which shows only one layer as 14a, only one layer as 16a and only one pair as 12a, it is apparent that the sentence should be understood as

meaning "layer 12a includes two layers, fibrous layer 14a and polymeric layer 16a".

The paragraph goes on (column 3, lines 52 to 53) to say that "layer 12 includes at least one layer 14 and one layer 16", which the Appellant submits is disclosure of the claimed laminate. However, the wording of D3 is once again not clear, in that it is not certain if "at least" refers just to layer 14 or to both layers 14 and 16. Given the disclosure of Figure 2 in combination with column 3, lines 45 to 46, as discussed above, the latter interpretation is the better of the two.

An important argument presented by the Appellant is that when the layers of D3 are bonded or laminated together, it is inevitable that two fabric layers will be laminated together with a polymer layer. In support of this submission, the Appellant refers to column 4, lines 44 to 49: "Fibrous layer 14 may be laminated or bonded to polymeric layer 16 by the polymer in polymeric layer 16 or through the use of an adhesive or the like. In addition to bonding, polymeric layer 16 and fibrous layer 14 may be secured together using conventional securing means as described above." The "conventional securing means" are cited at column 3, lines 58 to 64 as being "bolts, rivets, adhesive, staples, stitches and the like". There is no doubt that the cited passage discloses a fibrous layer laminated to a polymer layer, but there is no clear indication that further lamination takes place such that a polymer layer would be laminated to two fibrous layers. Additional securing means may be used, but this is mentioned in the context of bonding one fibrous layer to one polymer layer. The overall material is then

obtained by securing together layers, each consisting of a fibrous layer and a polymer layer, by "bolts, rivets, adhesive, staples, stitches and the like" (column 3, lines 58 to 64).

An illustration of how the material of D3 is made is given in Example 2 (columns 23 and 24), which explains that each fabric layer is laminated to a Caprolan® Nylon 6 film. Five fabric layers at a time, separated by release layers, are then laminated; the use of release layers makes it clear that no further bonding between fabric and polymer layers takes place.

Throughout D3 it is apparent that one fibrous layer must be bonded to one polymer layer, but it cannot be said that two fibrous layers laminated via a polymer film is unambiguously disclosed.

4.3 According to claim 1, the fabrics comprise yarns with a tensile strength of at least 900 MPa. D3 discloses (column 6, lines 26 to 52) fibres having a tensile strength of at least 5 g/denier, preferably higher. Since 7 g/denier is equated to 900 MPa (see D1, page 2, lines 9 to 11) it is clear that D3 concerns fibres having the strength defined in claim 1, and indeed, this was not disputed by the parties.

Claim 1 requires that the polymer film has a tensile strength of at least 10 MPa and a flexural modulus of 1500 to 4500 MPa. A modulus is discussed at column 13, lines 37 to 40, but given the ambiguous nature of the exact meaning of the modulus being discussed, as highlighted by the parties (see VI(c) above), nothing meaningful can be derived from this passage. However,

example 2 of D3 employs a polymer layer of Caprolan® Nylon 6. According to the data sheets of D5, the yield tensile strength of nylon 6 is 85 MPa and the flexural modulus is 2825 MPa. The tensile strength and flexural modulus according to both the contested patent and D5 are determined by ASTM tests D-638 and D-790 respectively. It can thus be concluded that the polymer film used in example 2 of D3 has the mechanical properties required by claim 1.

4.4 In summary, the stab resistant material of claim 1 differs from that disclosed in D3 only in terms of the structure of the laminate, which consists of two fabric layers joined via the polymer layer.

5. *Inventive Step (Article 56 EPC)*

5.1 Document D3 describes a material that is stab-resistant (see paragraph 4.1 above), and hence provides an appropriate starting point for the assessment of inventive step.

5.2 Starting from D3, the problem facing the skilled person is to improve the effectiveness of the stab-resistant material and the wearing comfort of clothes made from such material (see paragraph [0003] of the contested patent).

5.3 The proposed solution is to arrange the layers so that two woven fabric layers are laminated together via a polymer layer.

5.4 It is well known (see D1, page 1, lines 18 to 23 and page 2, lines 18 to 29) that the polymer in the

material contributes little to ballistic or stab resistance, but has the function of holding the strong fibres in place in order to prevent them from being pushed aside by a sharp or pointed object. This is the approach adopted in both D3 and D1, in which the fibres are bonded with a polymer layer.

Knowing that the stab resistance derives primarily from the fibre materials, the tendency of the skilled person reading D3 alone, and faced with the problem of increasing stab-resistance, would be to increase the number of layers of fibre/polymer laminates. However, this would lead to a less comfortable garment; the skilled person must either select from the large number of materials presented in D3 those that are both light and strong or strike a balance between protection and comfort. There is no hint in D3 to laminate fibre layers either side of the polymer layer.

D1 has basically the same approach as D3, in that a high-tenacity fibrous layer is bonded with a polymer layer, but according to D1 the polymer must have specific mechanical properties (see D1, page 2, lines 3 to 6). In addition, D1 states (page 5, lines 23 to 29) that "the polymeric continuum can be suitably applied as a layer in the composition by being bonded at one side or at both sides to a fiber-containing layer, depending on application, and, in more practical terms, on the availability of the appropriate manufacturing process. In a preferred embodiment of the invention, the fiber-containing layer is embedded in the polymeric continuum in order to immobilize the fibers, resulting in an extremely strong composition". According to the Appellant, this provides the skilled person with a

clear teaching to bond fibre layers to both sides of the polymer.

It is true that this is an option for the skilled person, but the more important question to be answered is whether there is any teaching that this would provide a solution to the problem of increasing both stab-resistance and comfort.

D1 provides no explanation as to why two fabric layers should be joined via a polymer layer, merely saying that it depends on "application and availability of appropriate manufacturing process". There is certainly no indication that this would lead to an increase in both stab-resistance and comfort; on the contrary, according to the preferred embodiment of D1, an extremely strong composition is obtained when the fibres are embedded in the polymer, which is completely different from having fibres either side of the polymer.

5.5 Seeing as there is no clear teaching in D1 that lamination of two fibre layers via a polymer film will provide improved stab-resistance and result in more comfortable clothing, the solution can only be recognised in D1 once the skilled person is made aware of the subject-matter of claim 1. Thus, the claimed material has an inventive step in light of D3 alone or in combination with D1.

5.6 Starting from D1

Although the parties considered D3 to provide the most promising starting point for the assessment of inventive step, the Opposition Division viewed D1 as

being the closest prior art, since it corresponds to the preamble of claim 1. The material of claim 1 differs from that of D1 in that the polymer film has a greater flexural modulus, defined as 1500 to 4500 MPa, compared with 42 to 1000 MPa as disclosed in D1.

Starting from D1, the objective problem is, as set out in the introduction to the contested patent, the improvement in stab-resistance and wearing comfort. The proposed solution is to employ a polymeric layer made from a polymer having a higher flexural modulus than that of D1. This means that fewer layers are required to make a lighter garment that provides comparable stab protection; any loss in flexibility is offset by having fewer layers.

D1 discloses (page 5, lines 3 to 12) that a polymer with a flexural modulus greater than 1000 MPa is too stiff to effectively withstand puncture or be worn comfortably. The skilled person only aware of D1 therefore has no reason to go against this teaching. Since D1 teaches away from the proposed solution, the conclusion of the Opposition Division that the claimed subject-matter has an inventive step when starting from D1 is sound.

5.7 Scope of Claim 1

The Appellant submits that the definition given in claim 1 is so broad that it includes materials that do not have the required properties, such that the inventive step is not present across the entire scope of the claim. Polystyrene, a brittle polymer, is cited as an example that meets the requirements of claim 1,

but would fail to provide any stab-resistance; polycarbonate also falls within the claim, but is so rigid that any garment made from it would be most uncomfortable to wear.

However, the Appellant has not provided any convincing evidence of laminates that do not show some stab-resistance and that cannot be worn as a garment. Stab-resistance is primarily derived from the fibre layers, so even if polystyrene were to be used as the polymer film, the resulting material would exhibit some resistance to stabbing. Likewise, there is no evidence that a stab-resistant garment cannot be made from a laminate incorporating a thin film of polycarbonate as the polymer. For these reasons the Board does not agree with the Appellant's submission.

6. *Lack of Sufficiency of Disclosure (Article 100(b) EPC)*

6.1 Lack of sufficiency of disclosure was cited as a ground of opposition in the notice of opposition on the basis of the alleged inability to determine the flexural modulus of the polymer film (see paragraphs 1 to 6 of the notice of opposition). It appears from the letter of the Appellant/Opponent dated 3 October 2006 (paragraph 4) that during the opposition proceedings this objection under Article 100(b) EPC was not maintained. The ground was nevertheless considered by the Opposition Division in its decision (see paragraph 2 on page 4 of the decision), and because it forms part of the contested decision, the ground *per se* is also a part of the appeal proceedings.

6.2 However, in the grounds of appeal the Appellant raised the objection under Article 100(b) EPC using a completely different set of arguments than those put forward in opposition proceedings. It is therefore first of all necessary to decide whether or not to admit the Appellant's submissions into the appeal proceedings. In exercising its discretion, the Board has to consider why this argument was not put forward in the proceedings before the Opposition Division (as it ought to have been), and whether such material is *prima facie* likely to prejudice the maintenance of the patent (see T 1002/92, point 3.4).

6.3 The reason put forward by the Appellant for the tardiness of the argument is that it had only been thought of at a late stage, and given its relevance and the interest of the public not to have invalid patents in force, it should be admitted into the proceedings.

6.4 The Appellant's submission itself involves two arguments. Firstly, the claim covers a situation where the polymer film and the yarns may be of the same material and one is not distinguishable from the other, hence it is not possible for skilled persons to know whether or not they are working within the scope of the claim. Secondly, the patent does not teach how to make products of the required stab resistance from the broad range of component materials disclosed in the patent specification, and hence over the whole area claimed.

The second argument relates more to inventive step in that the technical effect should be present across all subject-matter claimed (Articles 100(a) and 56 EPC), and this has been dealt with in paragraph 5.7 above.

The first argument relates more to the issue of clarity of the scope of protection (Article 84 EPC). Article 100(b) EPC simply requires that the invention be described so that it can be carried out in practice, and in this case the patent specification (paragraphs [0020] and [0021]) provides specific examples that demonstrate how to obtain materials in accordance with the invention. Since neither of the arguments appear at first sight to prejudice the maintenance of the patent, the Board sees no reason to admit the Appellant's late-filed submissions into the proceedings.

7. *Summary*

None of the cited objections prejudices the maintenance of the patent on the basis of the claims of the main request.

## Order

## For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Counillon U. Krause