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**Datasheet for the decision
of 2 November 2006**

Case Number: T 1239/03 - 3.3.03

Application Number: 97109710.0

Publication Number: 0814127

IPC: C08L 23/10

Language of the proceedings: EN

Title of invention:

Embrittlement-resistant polyolefin composition and flexible articles therefrom

Patentee:

BASELL NORTH AMERICA INC.

Opponent:

BOREALIS GmbH

Headword:

-

Relevant legal provisions:

EPC Art. 123(2)

Keyword:

"Amendments - added subject-matter (both requests: yes)"

Decisions cited:

G 0009/92, G 0004/93, T 0113/86, T 0383/88, T 0581/91,
T 1046/96, T 0701/97

Catchword:

Reasons 3.1.1, 3.3 to 3.3.5, especially 3.3.3



Case Number: T 1239/03 - 3.3.03

D E C I S I O N
of the Technical Board of Appeal 3.3.03
of 2 November 2006

Appellant: BOREALIS GmbH
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office dated
10 September 2003 and posted 17 October 2003
concerning maintenance of the European patent
No. 0814127 in amended form.

Composition of the Board:

Chairman: R. Young
Members: A. Däweritz
C. Heath

Summary of Facts and Submissions

I. The grant of European patent No. 0 814 127 in respect of European patent application No. 97 109 710.0, filed on 14 June 1997 and claiming the priority of 18 June 1996 of an earlier application in the USA (665785), was announced on 16 August 2001 (Bulletin 2001/33). The patent contained thirteen claims, Claims 1, 4, 6 and 12 of which read as follows:

1. An embrittlement-resistant and transparent polyolefin composition, comprising:
 - (a) at least 85 % by weight, based on the total weight of the polyolefin composition, of a crystalline polymer comprising either a propylene homopolymer having an isotactic index greater than 90 or a random copolymer of propylene and either ethylene or C₄-C₁₀ 1-olefins,
 - (b) an elastomeric copolymer comprising ethylene and either propylene or butene-1 having an ethylene content of 30 to 80 %, a chi value (being a measure of the randomness of the distribution of the two monomers in a copolymer based on ¹⁴C-NMR spectral data) of at least 0.90,

wherein said polyolefin composition has a heat distortion temperature (according to ASTM D-648, load 18.6 kg/cm²) of at least 60°C and has a ΔMFR of from 0 to 2.0, wherein ΔMFR is equal to a melt flow rate of said crystalline polymer minus a melt flow rate of said elastomeric copolymer, and wherein said polyolefin composition exhibits a

haze of not greater than 20 %, measured according to ASTM D 1003-92.

4. The polyolefin composition of claim 1, wherein said elastomeric copolymer has an ethylene content of 65 to 75 %.
6. The polyolefin composition of claim 1, wherein said crystalline polymer is a random copolymer of propylene and ethylene having a propylene content of at least 95 % by weight.
12. A sterilizable article in which at least part of the material construction thereof comprises the polyolefin composition of claim 1."

The remaining dependent Claims 2, 3, 5 and 7 to 11 concerned elaborations of the composition according to Claim 1, and dependent Claim 13 related to an elaboration of the article of Claim 12.

In this decision, any references given in brackets refer to the patent in suit, eg [0001] and [Claim 1], those *in italics* refer to the application as filed.

- II. On 16 May 2002, a Notice of Opposition was filed in which revocation of the patent in its entirety was requested.

(1) The Opposition was based on the grounds according to Article 100(a) EPC, for lack of novelty and lack of inventive step (Articles 54 and 56 EPC) with regard to three cited documents, ie two publications concerning the determinations of the isotacticity of polypropylene

and of the monomer sequence distribution in ethylene-propylene rubber (including a definition of the chi value), respectively, and a Patent Abstract of Japan. Additionally the opposition was based on the ground according to Article 100(b) EPC, for not complying with the provisions of Article 83 EPC.

More particularly, the objection under Article 100(b) EPC was based on an asserted lack of clarity of (i) the meaning of the isotactic index within the definition of component (a) of Claim 1, (ii) the amount of ethylene expressed in terms of percent of the elastomeric copolymer (ie component (b) of the claim), and (iii) the chi value of component (b). Since the results of a determination of the isotacticity depended on the method used, but the patent in suit did not identify the method used, it did not, according to the Opponent, provide enough information as to what had been meant by "isotactic index". Moreover, apart from the hint that the chi value could range from 0 to 2 [page 4, lines 2 to 4], no definition of this parameter had been made available in the patent. According to the Opponent, the distribution of comonomers along the polymer chain was not, however, so trivial that the reference to a chi value without further description of the method of its determination provided sufficient disclosure. In the only publication defining the monomer sequence distribution in ethylene-propylene rubber in terms of a chi value measured by ^{13}C -NMR, found by the Opponent, this value did not comply with the only hint in the patent in suit, mentioned above.

Due to these deficiencies, above, and the further fact that neither the claims nor the description indicated

whether the amount of ethylene in component (b) of Claim 1 (aspect (ii), above) related to weight or mol percent, the skilled person would not know how to carry out the claimed subject-matter of the patent in suit.

(2) In a letter dated 30 January 2003, the Patent Proprietor disputed the arguments of the Opponent concerning all the issues raised in the Notice of Opposition and, in support of its point of view to these issues, it submitted an English translation of the claim of the Japanese document underlying the above Patent Abstract of Japan and two reference documents concerning (i) the method of determination of the isotacticity index and (ii) another definition of the "sequence order parameter" (chi value) different from the one mentioned in section II(1), above.

Moreover, the Patent Proprietor stated with regard to aspect (ii) (section II(1), above, paragraph 2) that: "The ethylene content of elastomeric copolymer in the claims is in weight %." (item 1.1.2 of the letter).

(3) In reply to a summons to oral proceedings issued by the Opposition Division on 24 March 2003, both parties confirmed their respective points of view concerning the different aspects of the Opponent's objection under Article 100(b) EPC and submitted further arguments to this end (Opponent's letter dated 7 July 2003; Patent Proprietor's letter dated 10 July 2003).

In particular, the Opponent stressed that the skilled person could not derive from the claims, whether the ethylene content in the elastomeric copolymer of 30 to 80% was to be interpreted as mol or weight percent.

Moreover, it argued on the basis of the examples in the patent in suit referring to a molar ratio of the comonomers that the Patent Proprietor's above statement (section II(2), above) gave further rise to uncertainty of whether a particular polymer composition was within or outside the claims of the patent in suit.

By contrast, the Patent Proprietor argued in this respect that it would be known in the art that a copolymer containing two types of monomer units possessed elastomeric properties within a certain composition range. If, however, ethylene was used in excess or in amounts too low, the resulting copolymer would in any case exhibit properties similar to those of an homopolymers of the prevailing comonomer component with a high crystalline structure and no elastomeric properties (last paragraph of its letter). Furthermore, with a letter dated 5 September 2003, the Patent Proprietor filed a new Claim 1 of an Auxiliary Request.

(4) At the oral proceedings held on 10 September 2003, the Patent Proprietor submitted a Main Request on the basis of a new Claim 1, amended only in that "¹⁴C-NMR" within the definition of component (b) had been replaced by "¹³C-NMR", and the granted version of Claims 2 to 13 (cf. section I, above). The allowability of this correction was not disputed between the parties, nor did the Opposition Division take a different view in this respect. Moreover, on pages 2 to 4 and 6 to 9, the description was adapted to the above correction and, in addition, all references to Examples 2 and 3 were deleted therefrom, including their description on page 6, their features and measurements in all the

tables and Figures 3 and 4. Furthermore, the Opponent filed a sheet of data "chi-Wertevergleich" (Annex 1 to the Minutes of the oral proceedings).

Both parties maintained their respective views concerning the different issues and aspects of the case as discussed before in writing.

III. In an interlocutory decision announced at the end of the oral proceedings and issued in writing on 17 October 2003, the patent in suit was maintained on the basis of the Main Request as filed at the oral proceedings (sections II(4) and I, above).

(1) In particular, the Opposition Division held that it would be within the knowledge of the skilled person to select (i) the appropriate method for determining the isotactic index and to decide (ii) how to measure the ethylene content of the elastomeric copolymer (component (b)) and (iii) whether this content was weight or mol percent. Furthermore, "in order to achieve an embrittlement-resistant and transparent polyolefin composition within the scope of claim 1, the skilled person knows that it was necessary to attain a chi value of at least 90 using the teaching disclosed in the contested patent" (Nos. II.2.1c, f and i of the reasons). Therefore, the Opposition Division came to the conclusion that the subject-matter of the patent in suit was disclosed in a manner sufficiently clear and complete to be carried out by a skilled person.

(2) Novelty was acknowledged because there had been no explicit disclosure of the chi value in the Japanese document mentioned in sections II(1) and (2), above).

The issue of inventive step had not, according to the decision under appeal, been contested. In any case, the above Japanese document would relate to packaging material using visbroken resin whilst the patent in suit concerned a composition injection mouldable into flexible, substantially transparent articles without the need of a costly visbreaking step. Therefore, an inventive step was also acknowledged.

IV. On 16 December 2003, a Notice of Appeal was filed by the Opponent/Appellant against this decision. The prescribed fee was paid on the same date. The Statement of Grounds of Appeal was received on 5 February 2004.

(1) In the Statement of Grounds of Appeal, the Appellant further pursued its previous objections under Articles 100(a) and (b) EPC, cited six further documents, referred to a number of decisions of the Enlarged Board of Appeal and of different Boards of Appeal and raised new objections under Article 84 EPC and, in particular, under Article 123(2) EPC.

(2) To this end, it argued that the deletions from the specification of the patent in suit carried out by the Patent Proprietor in the opposition proceedings, in particular the deletion of Examples 2 and 3 of the patent in suit, would have changed the meaning of Claim 1 which amounted to an extension of the patent in suit beyond the content of the application as filed and would, therefore, contravene Article 123(2) EPC, so that the patent in suit should be revoked under Article 100(c) EPC.

(3) In order further to explain this opinion, the Appellant argued that, in view of the originally filed Examples 1 to 3, wherein the ethylene content had been expressed in terms of the molar ratios of ethylene to butene-1 and propylene (they will be referred to herein below as C_2/C_4 - and C_2/C_3 -m-ratios), respectively, the skilled person would have possibly assumed that the percentage in the definition of component (b) in the claims was to be understood as mol percentage (Statement of Grounds of Appeal: item 4.43).

(4) However, in contrast thereto, the Patent Proprietor had, as pointed out by the Appellant, stated in the opposition proceedings that the percentage in Claim 1 was to be understood as weight percent (section II(2), above; Statement of Grounds of Appeal: item 4.43) and, consequently, Examples 2 and 3 had been deleted from the specification, because they were no longer encompassed by Claim 1 under these circumstances (the C_2/C_3 -m-ratios of 25:75 and 32:68 in those examples corresponded to ethylene contents in component (b) of 18.18 wt.-% (Example 2) and 23.88 wt.-% (Example 3), respectively). Example 1 would, however, still allow both interpretations of the percentage, because 70 mol-% ethylene would correspond to 53.85 weight-% (item 4.44).

(5) The Appellant further emphasised that, whilst (i) the term of "weight percent" had never been used anywhere in the specification in relation to the ethylene content of component (b), (ii) mention had only been made therein of percent (%), and (iii), in the examples as filed, reference had only been given in terms of molar ratios of ethylene to another α -olefin,

the specification had suddenly, by deletion of Examples 2 and 3, been restricted to weight percent, which could not be derived from the version as originally filed.

Therefore, the above request for revocation was, in the Appellant's view, justified (Statement of Grounds of Appeal: items 2.4 to 2.7).

V. With a letter dated 14 October 2004, the Respondent disputed the validity of the objections and arguments of the Appellant and filed nine further documents in order to support its case, in particular with regard to comonomer distribution and investigations about structure determination using NMR spectrometry. One of these documents, mentioned on [page 4, lines 24 to 26], referred to a process for producing ethylene/ α -olefin elastomers which could be used as component (b).

(1) Furthermore, it requested that the patent in suit be maintained as granted (Main Request) or, in an auxiliary request, that the patent in suit be maintained in the version as maintained in the decision under appeal (item 2 of the letter).

If the Board would, however, concur with the view of the Appellant concerning the asserted violation of Article 123(2) EPC by the amendments of the description, those amendments would be withdrawn as an Auxiliary Request (last paragraph of item 3 of the letter).

(2) More particularly, the Respondent put emphasis on the fact that the claims had not been amended. The

deletion of an example could not, however, amount to a violation of Article 123(2) EPC.

Moreover, assuming that the percentage could be either by mol or by weight, the skilled person would have to carry out only four experiments in order to find out with which percentage the desired result would be obtained (item 4.3 of the letter, in particular page 14, paragraph 2 *et seq.*)

VI. One month before the oral proceedings scheduled for the 2 November 2006, another five documents were cited by the Appellant in a further letter dated 2 October 2006 with regard to the objection under Article 100(b) EPC.

VII. In a letter with the same date of 2 October 2006, the Respondent modified its requests and reiterated its previous arguments. It requested that (i) the appeal be dismissed and (ii) the patent in suit be maintained as granted. In the alternative, the patent in suit should be maintained in the version as maintained in the decision under appeal. Moreover, a further Auxiliary Request 2 was filed therewith, wherein Claim 1 as maintained in the decision under appeal had been further amended by inserting the phrase "wherein said composition is not visbroken and" before "wherein said polyolefin composition has a heat distortion temperature ..." (cf. sections I and II(4), above) .

Finally, by fax received on 31 October 2006, the Respondent filed a copy of ISO 9113.

VIII. Oral proceedings were held before the Board on 2 November 2006.

(1) At the beginning of the oral proceedings, the Representative of the Respondent withdrew the Main Request (maintenance of the patent in suit as granted) and requested that the appeal be dismissed. Later in the discussion, he indicated, however, that, in view of the discussion concerning the issue of Article 123(2) EPC, he might consider to reinstate the requests as filed in writing (section VII, above), *viz.* maintenance of the patent in suit as granted as the Main Request.

However, his attention was drawn by the Board to the fact that such a Main Request would not be admissible for two reasons: (i) in the decision under appeal, the Patent Proprietor's Main Request had been successful (sections II(4) and III, above), so that it was not adversely affected by the decision (Article 107 EPC), and (ii) an appeal had only been filed by the Opponent. Therefore, the Patent Proprietor as the Respondent was primarily restricted to defending the result of the decision under appeal (G 9/92 and G 4/93, OJ EPO 1994, 875, No. 2 of the Order).

(2) The discussion of the substantive matters focused on the question of whether the amendments in the patent specification, in particular the deletion of Examples 2 and 3 from the granted version of the patent in suit, in order to clarify the question of whether the percentage in the definition of component (b) related to weight or mol percent, would have resulted in a violation of Article 123(2) EPC or not.

The statements and arguments of the parties may be summarised as follows:

(3) With regard to Article 123(2) EPC, the Respondent referred to the facts that, apart from the undisputed correction of ^{14}C -NMR to ^{13}C -NMR, Claim 1 had not been amended, and that Claim 1 as originally filed had not contained any limitation of the ethylene content in the elastomeric copolymer of component (b). Furthermore, it argued that one could see from the description as filed, starting on *page 7, last paragraph* that, whenever reference was made to a comonomer "content", it was given in weight percent. This would, of course, also be valid for the *third paragraph on page 8* and for *Claim 7*, where the ethylene *content* of the elastomeric copolymer was addressed. By contrast, in none of the examples at any stage of the proceedings, mention had been made of such a "content" in the context of the elastomeric copolymers used therein. Instead, reference had been made to the C_2/C_4 - and C_2/C_4 -m-ratios, respectively.

The Respondent further argued that, unfortunately, the claims had to be limited during the different stages of the proceedings before the EPO, which led to the unfavourable situation, that some examples did no longer fall within the scope of the claims and had, therefore, to be deleted. In any case, Example 1 had remained within the scope of the claims.

(4) The Appellant did not concur with these arguments, but reiterated its arguments provided in the Statement of Grounds of Appeal (sections IV(2) to (5), above).

In particular, it put emphasis on the fact that the claims *per se* had been and still were completely open to both conceivable interpretations of the percentage

in question (section VIII(2), above), so that it had, in its view, become necessary for the skilled person to fall back on the description to resolve this uncertainty. In the description, the only source of relevant information could, however, be found in the examples of the patent in suit as granted, which had been identified as relating to preferred embodiments of the claimed subject-matter (*page 12, lines 16 to 19* and paragraph [0049], respectively). In each of them, the composition of the elastomeric copolymer had been defined in terms of the molar ratio of its constituents. Based on this finding, the skilled reader would have assumed that the ethylene content of the copolymer in Claim 1 had to be understood as mol-% (cf. section IV(3), above). However, the Patent Proprietor had, in the opposition and again in the appeal proceedings, (i) unambiguously stated that this assumption would be wrong and that the percentage meant weight percent and (ii) had additionally deleted two of the three examples, because they had not been consistent with the Patent Proprietor's above statement.

Whilst component (b) of Example 2 would have been outside the scope of the claims, irrespective of whether its ethylene content was construed to be 25 mol-% (on the basis of the C_2/C_3 -m-ratio given) or 18.18 weight-% (recalculated therefrom according to the Respondent's interpretation), Example 3 would be within the scope of Claim 1, if the definition in the claim was interpreted as mol-%, but not if the percentage in Claim 1 was assumed to be weight-%, because the C_2/C_3 -m-ratio of 32:68 as disclosed therein would correspond to 32 mol-% or 23.8 % by weight, respectively (cf. section IV(4), above).

Moreover, the Appellant referred to *page 8, lines 7 and 8*, where a preferred range of the ethylene content of component (b) of "65 to 75%" was disclosed. If one assumed that the percentage related to mol-%, Example 1 (disclosing a C₂/C₄-m-ratio of 70:30) would also be clearly within this range. Otherwise, however, the recalculation of its C₂/C₄-m-ratio would yield a value of approximately 54 % by weight (cf. section IV(4), above; undisputed between the parties), which would, in fact, be outside the above preferred range. This meant, in the Appellant's view, that there was not a single example which, though allegedly relating to preferred embodiments of the claimed subject-matter (cf. *page 12*, mentioned above), would be in line with the preferred embodiment as defined on *page 8*.

Consequently, the application text as filed clearly pointed, in the Appellant's view, in the direction of a mol percentage in the definition of the ethylene content of component (b) in Claim 1, and any interpretation to the contrary would shift the disclosure and the teaching of the application as filed in a direction clearly contravening the requirements of Article 123(2) EPC. The statement of the Respondent (cf. section II(2), above) would, however, clearly and unambiguously suggest the interpretation of the percentage as being by weight.

Moreover, the Appellant pointed out that the wording of Article 123(2) EPC did not refer to the claims, but to the European patent application or European patent as a whole, which should not be amended in such a way that

it contained subject-matter extending beyond the content of the application as filed.

Therefore, it concluded that the amendment of the patent in suit as maintained in the decision under appeal would clearly contravene Article 123(2) EPC.

(5) When the parties stated that they did not want to make further submissions, the debate was closed on this issue. After deliberation, the parties were informed that the Main Request would be refused, and they were invited to comment on the Auxiliary Request, which led the Respondent to state that the situation would be the same in this respect, so that no further discussion would be necessary. Nor did either party want to make any further submissions.

IX. The Appellant requested that the decision under appeal be set aside and that the patent in suit be revoked.

The Respondent requested that the appeal be dismissed, in the alternative, that the patent be maintained on the basis of Auxiliary Request 2 as filed with the letter dated 2 October 2006, comprising Claims 1 to 13.

Reasons for the Decision

1. The appeal is admissible.
2. The only issue discussed in the oral proceedings concerned the question of whether the Main Request of the Respondent had violated Article 123(2) EPC. Since, as agreed by both parties in the oral proceedings

(section VIII(5), above), all the arguments presented in that context were likewise valid for the Auxiliary Request of the Respondent and no further comments were made by either party on the latter request, both requests can be dealt with herein together.

3. *Article 123(2) EPC*

3.1 It was not in dispute between the parties that neither [Claim 1] nor [Claim 4] (section I, above), nor paragraphs [0019] or [0031], nor any one of [Examples 1 to 3] contained a definition of the ethylene content of the elastomeric copolymer (ie component (b)) in terms of weight percent.

3.1.1 In the above claims and paragraphs of the patent in suit, reference is made only to "%" and, in the examples, the compositions of component (b) are given in terms of the C₂/C₃- and C₂/C₄-m-ratios, respectively. These findings have also been valid for *Claims 7, 8 and 17 to 19, page 8, lines 7 and 8* and *Examples 1 to 3*, the only places in the application as filed which could form a basis for the wording or interpretation of the claims and passages mentioned above.

3.1.2 By contrast, with respect to the composition of component (a), ie its ethylene content, and the amounts of the different mandatory and optional ingredients in the claimed composition, the application as filed clearly and unambiguously referred to "% by weight", "weight percent" or "parts by weight" (*Claims 1, 9, 12 and 17 to 19, page 5, line 10, page 7, line 17 to page 8, line 2, page 10, lines 14 and 24, page 11, line 8, page 13: Example 1, page 15: Example 2*, and

pages 16 and 17: *Example 3 and Comparative Example 1*, respectively. In the patent in suit, the places corresponding thereto are paragraphs [0019], [0029], [0039], [0041], [0042], [0053], [0059], [0061] and [0063], and [Claims 1 and 6] (section I, above).

3.1.3 Whilst it is true that in *Claims 17 to 19* (deleted in the examination proceedings), the compositions of the respective copolymers of component (a) were given only as "%", it was evident that they related to the random, crystalline copolymers of the respective components (a) of the examples and that these percentages related also to "% by weight" (cf. section 3.1.2, above).

3.1.4 The passages of the general description and the claims, as mentioned above, clearly show that, with one exception, all mandatory and optional ingredients and their amounts, respectively, had clearly been defined in terms of units by weight, which could unambiguously be derived from the claims and/or the description as filed.

This exception, mentioned above, concerns the ethylene content of the copolymer of component (b) defined only as "30 to 80 %". In this respect, not only the claims of the application as filed, but also the respective general description, on which the skilled reader had to rely when trying to resolve this uncertainty, have been completely silent. In other words, a clear and unambiguous information, which would allow to exclude one of the two conceivable interpretations of the percentage (mol or weight percent) in the definition of component (b) in Claim 1, can be derived neither from

those claims nor from the general description. This has been pointed out by the Appellant.

Apart from the incomplete definition in the claims, the only indication, which relates to the composition of component (b), is the molar ratio given in each one of the examples.

These available data cannot, however, support the Respondent's position, that the percentage relating to the composition of component (b) would be weight percent (section II(2), above). Instead, as shown by the undisputed calculations, carried out by the Appellant, of the ethylene contents in mol and weight percents from the respective molar ratios and their comparison with the ranges in the present Claims 1 and 4, the calculations rather suggest that the percentage in question should be construed to mean mol percent (sections II(3), IV(3) and (4), and, in particular, section VIII(4) above).

- 3.2 However, the Respondent had clearly excluded this assumption (sections II(2) and VIII(3), above). To this end, it had argued that the word "content" had only been used in relation to amounts expressed in terms of % by weight, whilst in the examples reference had been made to molar ratios, thereby deliberately avoiding the word "content". In the general description however, the use of the expression "ethylene content" in paragraph [0031] (*page 8, lines 7/8*) should be seen in the context of the definition in paragraph [0029] (*page 7, last paragraph to page 8, line 2, relating to component (a)*). Consequently, the word "content" would,

whenever used, indicate that the percentage should be construed to mean "weight percent".

These arguments are not, however, convincing for several reasons.

3.2.1 Thus, (i) paragraph [0031] is clearly related to subject-matter different from that in paragraph [0029], and (ii) [Claims 4 and 6] confirm this, when seen in the context of original *Claims 7 to 9 and 12*, from which they (apart from some features, which are now in [Claim 1]) were derived. Furthermore, (iii) whilst there is a statement that, in the examples, all quantities of ingredients were in pph, unless otherwise specified, no general statement of this kind can be found with regard to the percentages mentioned in the application text and the patent specification, respectively. In accordance with this finding, even the amounts of optional further additives in the description had also been defined individually for each class of additives in a clear manner in terms of percent by weight (*pages 10 and 11 and paragraphs [0039], [0041] and [0042], as mentioned above*).

3.2.2 Nor is the argument convincing that the skilled reader would easily have recognised which limits of the ethylene content apply, since an ethylene content too low or too high would cause the polymer to have a crystalline structure (section II(3), above). In paragraph [0029] (or *page 7, last paragraph*), the maximum ethylene content of a crystalline ethylene/propylene polymer of component (a) is defined as being 10% by weight (ie less than 15 mol %), which is far below the corresponding limit of 30% in component (b),

irrespective of its interpretation as weight or mol percent. Nor has the word "elastomeric" been defined in other terms than the above unclear percentage range.

3.2.3 In the present case with the apparent uncertainty in the claims, there is, on the one hand circumstantial evidence in the previous Examples 1 to 3, which indicates that the ethylene content in component (b) should be understood as mol-%, in particular, when taking into account the Appellant's arguments as summarised in paragraphs 3 and 4 of section VIII(4), above. These arguments, which have not convincingly been refuted by the Respondent (section 3.2, above), show, furthermore, that there has been a clear inconsistency within the specification itself with respect to different statements on *pages 8 and 12*, respectively, explaining what should be regarded as being a preferred embodiment (ie between, on the one hand, Example 1 and, on the other hand, [Claim 4] and paragraph [0031], which do not encompass the example, cf. section VIII(4), above, paragraph 4)). In view of these facts and findings, the Board cannot refute these arguments of the Appellant either.

On the other hand, the Respondent/Patent Proprietor has clearly and unambiguously excluded the assumption that the percentage could be by mol by defining it as weight percent (sections II(2) and VIII(3), above). These statements cannot be disregarded.

Nor can the two, in principle, conceivable interpretations of the percentage at issue, though being clearly inconsistent with one another, in the present circumstances, for which the responsibility is

only on the former Applicant's side (who is now the Respondent), be disregarded to the detriment of the Appellant and, furthermore, of the public.

3.2.4 Moreover, if the Respondent had directly inserted "% by weight" into the definition of component (b) in Claim 1, this would inevitably have given rise to an objection of violation of Article 123(2) EPC, which would have prevailed, because the application as originally filed does not provide a clear and unambiguous disclosure, which would support the clear and unambiguous position of the Respondent that "% by weight" was meant.

3.3 In view of the above arguments, statements and findings, the Board takes the view that (i), in order to understand the disclosure and teaching of the patent in suit, it has been necessary for the skilled reader to interpret the percentage range of the ethylene content in the elastomeric copolymer as defined in Claim 1 on the basis of the description, the general part of which was not, however, helpful in this respect, and, therefore more particularly, on the basis of the examples presented in the application as originally filed as describing preferred embodiments (*page 12, line 16*). He would have derived, namely from the disclosure in those Examples 1 and 3, that the patent application as filed lent a certain preponderance to interpreting the percentage value given for the ethylene content of component (b) as mol percent rather than weight percent, in particular since Example 3 did not comply with the interpretation of the percentage as being related to the weight (section VIII(4), above).

In addition to its explicit statement to this end (sections II(2) and VIII(3), above), the Respondent/Patent Proprietor has tried, by deleting Example 3 in particular, to give preponderance to an interpretation of the percentage value as weight percent. Although neither of the two interpretations can be made with certainty - be it before or after the amendment - there is a shift in the way the claim might be interpreted. Prior to the amendment, there was a preponderance for the interpretation "mol percent" (cf. sections VIII and 3.2.3, above) which due to the deletion of Example 3 has shifted towards "weight percent".

3.3.1 In order to determine compliance of such a shift with Article 123(2) EPC, the Board is faced with the following issues: First, whether the mere amendment of the description rather than the claims may lead to an addition of subject-matter. Second, if the first question is answered in the affirmative, if such an addition of subject-matter has occurred due to the deletion of the two examples, and, third, if question two can be answered with certainty neither one way or the other, upon which party it should be incumbent to prove that subject matter has or has not been added.

3.3.2 In the Board's view, Article 123(2) EPC must be interpreted as referring to the patent (or application) as a whole rather than to the claims only. This finding proceeds directly from the clear wording of the Article. Hence, it is not crucial in which part of the patent (or application) an amendment has been carried out, but only whether the overall change in the content of the patent (or application) results in the skilled person being presented with information which is not clearly

and unambiguously presented in the originally filed application, even when account is taken of matter which is implicit to a person skilled in the art.

3.3.3 Whilst the first question (section 3.3.1, above) can, therefore, be answered in the affirmative, the second question cannot, in the light of the above explanations, be answered with certainty. Whilst there is a shift in the preponderance of how the claim may be interpreted, it is not certain that the amendments made would undoubtedly lead to a claim interpretation different from the one prior to the amendments. It is clear, however, that the Patent Proprietor by deleting Examples 2 and 3 intended to have the percentage of ethylene content interpreted as weight percent. In such a case where it is certain that a shift in the interpretation of the claims has occurred, but uncertain if this would lead to an addition of subject-matter, the Board takes the view that it should be incumbent upon the Patent Proprietor or Applicant as the author of such amendment(s) to demonstrate that by making the amendment(s), the conditions of Article 123(2) EPC have been complied with.

This gives rise to the question as to which requirements have to be satisfied by the author of the amendment(s) in order to established that the requirements of Article 123(2) EPC have been met. Subsequent to decision T 113/86 of 28 October 1987 (not published in OJ EPO, in particular No. 2.2 of the reasons), wherein the Board had come to the conclusion that voluntary amendments should not be allowed "if there is the slightest doubt that the unamended patent could be construed differently to the patent as

amended", this finding became the basis of established jurisprudence dealing with the questions of amendments under Article 123(2) and Rule 88 EPC, respectively. More particularly, it was established that "the normal standard of proof in civil proceedings such as appeals before the Boards of Appeal, namely 'the balance of probability', is inappropriate, but that a rigorous standard, i.e. one equivalent to 'beyond reasonable doubt' is the right one to apply in such a case, for applying a lower standard could easily lead to undetected abuse by allowing amendments on the basis of ostensibly proven common general knowledge." (T 383/88 of 1 December 1992, No. 2.2.2 of the reasons; cf. also eg T 0581/91 of 4 August 1993, No.3 of the reasons; T 1046/96 of 19 January 1998, No. 4 of the reasons; and T 701/97 of 23 August 2001, No. 4.1.2 of the reasons, none published in the OJ EPO).

3.3.4 In the case at issue, the Patent Proprietor was, however, unable to demonstrate that before and after the amendments, the percentage value could have been consistently interpreted as "weight percent". Therefore, it must be concluded that the author of the amendments in the patent in suit, ie the Respondent, has not discharged the burden of proof which was on him.

3.3.5 This means that, in the specific circumstances of this case, the deletion of those two examples in order to exclude the possibility of interpreting the relevant percentage as mol percent provides a lateral shift of information corresponding to the extension of subject-matter beyond the content of the application as filed (Article 123(2) EPC). Thus, it clearly shifts the gist of the patent in suit as defined in any one of Claims 1

to 13 (section I, above, with the correction according to section II(4), above), despite the fact that their wording has not been modified in this respect. In other words, the deletion of Example 2 and, in particular, of Example 3 amounts to the provision of an *aliud*.

4. In summary, the Board has, therefore, come to the conclusion that the Main Request and, as indicated in section 2, above, also the Auxiliary Request under consideration (section IX, above) do not comply with Article 123(2) EPC. Therefore, neither request can succeed, but must be refused.

5. In view of these findings, there is no need to consider the other questions concerning the other parameters in Claim 1, which were disputed between the parties with regard to Article 100(b) EPC. Nor is it necessary to deal with the issues of novelty and inventive step.

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:

E. Görgmaier

R. Young