

Internal distribution code:

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

**Datasheet for the decision
of 19 September 2017**

Case Number: T 0389/13 - 3.3.03

Application Number: 02761404.9

Publication Number: 1417260

IPC: C08L23/04, C08F10/02

Language of the proceedings: EN

Title of invention:

BIMODAL POLYETHYLENE COMPOSITION AND ARTICLES MADE THEREFROM

Patent Proprietor:

Dow Global Technologies LLC

Opponents:

Total Research & Technology Feluy
Borealis Technology OY

Relevant legal provisions:

RPBA Art. 12(2), 13(1), 13(3)
EPC Art. 123(2), 111(1)
EPC R. 43(1)(b)

Keyword:

Late file request admitted
Unallowable intermediate restriction / generalisation (all requests)

Decisions cited:

G 0002/10, G 0001/93, G 0001/03



Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0389/13 - 3.3.03

D E C I S I O N
of Technical Board of Appeal 3.3.03
of 19 September 2017

Appellant: Dow Global Technologies LLC
(Patent Proprietor) 2040 Dow Center
Midland, MI 48674 (US)

Representative: Boulton Wade Tennant
Verulam Gardens
70 Gray's Inn Road
London WC1X 8BT (GB)

Respondent: Total Research & Technology Feluy
(Opponent 1) Zone Industrielle C
7181 Senefve (BE)

Representative: Raboin, Jean-Christophe
Total Research & Technology Feluy
Zone Industrielle C
7181 Senefve (BE)

Respondent: Borealis Technology OY
(Opponent 2) P.O.Box 330
06101 Porvoo (FI)

Representative: Pillep, Bernhard
Kador & Partner
Corneliusstrasse 15
80469 München (DE)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 12 December
2012 revoking European patent No. 1417260
pursuant to Article 101(3) (b) EPC.**

Composition of the Board:

Chairman D. Semino
Members: F. Rousseau
 R. Cramer

Summary of Facts and Submissions

- I. The appeal lies against the decision of the opposition division posted on 12 December 2012 revoking European patent No. 1 417 260.
- II. Two oppositions had been filed requesting revocation of the patent in its entirety.
- III. The contested decision was based on a main request and four auxiliary requests, all submitted with letter of 14 September 2012. According to the contested decision, the amendment that the ductile-brittle transition temperature T_{db} was "*determined from critical strain energy release rate, G_c , measurements in the Charpy mode*" present in all requests resulted in the claimed subject-matter to lack sufficiency of disclosure. The reason for that finding, based on the rationale of T 0611/02, was that the skilled person was not in a position to know whether he was working inside or outside the scope of the claims. In addition the feature T_{db} "*determined from critical strain energy release rate, G_c , measurements in the Charpy mode*" was unclear, as essential information necessary for its correct determination was not known, which also resulted in all requests not to comply with the requirements of Article 84 EPC.
- IV. The patent proprietor (hereafter appellant) appealed the decision and submitted with the statement setting out the grounds of appeal a main request and five auxiliary requests. The main and first to fourth auxiliary requests corresponded to those underlying the contested decision, with the exception that the ductile-brittle transition temperature T_{db} was not defined to be "*determined from critical strain energy*

release rate, G_c , measurements in the Charpy mode". The fifth auxiliary request corresponded to the main request underlying the contested decision.

- V. The Board in a communication sent in preparation for oral proceedings gave the preliminary opinion that the difficulty for the skilled person to know whether he was working within the area covered by the claim as expressed in decisions T 0256/87 and T 0611/02 was not, at least in the present case, *per se* a sufficient criterion to deny sufficiency of disclosure. However, remaining issues with respect to sufficiency of disclosure had still to be decided, as well as the allowability of the amendments which had been questioned by opponent 1 (respondent 1).
- VI. In response to the Board's communication, the appellant submitted a new main request with a letter of 27 July 2017, the previous requests being resubmitted with that letter, but renumbered as first to sixth auxiliary requests. Claims 1 of those requests read as follows (deletions compared to claim 1 as originally filed are indicated in strikethrough and additions in bold and underlined):

Main request

"1. A polyethylene composition comprising a low-molecular-weight (LMW) ethylene homopolymer component and **from 35 to 65 weight percent of** a homogeneous, high-molecular-weight (HMW) ethylene interpolymmer component **having a density of from 0.905 to 0.955 g/cm³**, wherein the LMW component is characterized as having a molecular weight distribution, MWD^L , of less than ~~about~~ 8 and a weight average molecular weight, M^L_w , and wherein the polyethylene composition is

characterized as having a bimodal molecular weight distribution, and a ductile-brittle transition temperature, T_{db} , of less than $-20\text{25}^{\circ}\text{C}$, and wherein the polyethylene composition is characterized as a molecular weight distribution (MWD) as defined by the ratio of M_w/M_n of 30 or less, and the HMW component is characterized as having a substantially uniform comonomer distribution or a reverse comonomer distribution."

First auxiliary request

Compared to claim 1 of the main request, claim 1 of the first auxiliary request specified at the end of the claim "and wherein the reverse comonomer distribution is characterized as the molar comonomer content of interpolymer fractions having a M_w greater than or equal to 300,000 g/mole being at least 25 percent higher than the molar comonomer content of interpolymer fractions having a M_w of less than or equal to 100,000 g/mole."

Second auxiliary request

Compared to claim 1 of the first auxiliary request, claim 1 of the second auxiliary request was restricted to the embodiment wherein the HMW (high-molecular-weight) component has a reverse comonomer distribution and the upper limit for the density of the HMW ethylene interpolymer component was defined to be 0.940 instead of 0.955.

Third auxiliary request

Compared to claim 1 of the first auxiliary request, claim 1 of the third auxiliary request was restricted

to articles selected from a water pipe, a gas pipe, a blow moulded article of a film or film structure made from the composition defined in claim 1 of the first auxiliary request and the the upper limit for the density of the HMW ethylene interpolymer component was defined to be 0.940 instead of 0.955.

Fourth auxiliary request

Compared to claim 1 of the third auxiliary request, claim 1 of the fourth auxiliary request was restricted to those articles wherein the HMW component has a reverse conomer distribution.

Fifth auxiliary request

Compared to claim 1 of the first auxiliary request, claim 1 of the fifth auxiliary request defined that the HMW component had a molecular weight distribution, MWD^H , of 3 and and the upper limit for the density of the HMW ethylene interpolymer component was defined to be 0.940 instead of 0.955.

Sixth auxiliary request

Claim 1 of the sixth auxiliary request corresponded to claim 1 of the main request underlying the impugned decision, i.e. claim 1 of the present first auxiliary request in which it was specified that the ductile-brittle transition temperature T_{db} was specified to be "*determined from critical strain energy release rate, G_c , measurements in the Charpy mode*".

VII. The appellant's arguments, insofar as they are relevant to the present decision, may be summarized as follows:

Admittance of the main request

- (a) The first possibility for the patent proprietor to react to an objection under Article 123(2) EPC against claim 1 had been during the appeal proceedings. The opposition division had indicated in the annex to the summons that they had no objection in this respect, this issue being not decided, let alone discussed during the oral proceedings. The patent was revoked for a lack of sufficiency of disclosure, on the sole ground that T_{db} could not be determined accurately, other objections with respect to sufficiency of disclosure being not discussed either.

- (b) It could be taken from the Board's communication that the decision of the opposition division on sufficiency of disclosure was incorrect. However, the Board had raised further issues concerning sufficiency, as well allowability of the amendments under Article 123(2) EPC, which the Board considered appropriate to be discussed at the oral proceedings rather than to remit the case for consideration by the opposition division. In particular, the question had been raised in respect of the issue of sufficiency of disclosure whether the examples of the application as filed could be considered to fulfill the definition of a reverse comonomer distribution as introduced in claim 1 according to all pending requests, which definition merely represented the threshold of detection on the basis of which a reverse comonomer distribution could be considered to be observed.

(c) The new main request had been filed as an immediate response in the light of the comments made by the Board. The new main request differed from the previous main request only in that it did not contain any more the supplementary condition in respect of the reverse comonomer distribution which had been introduced in all auxiliary requests. The amendment operated was therefore an appropriate answer to the Board's concerns, which amendment also reinforced the appellant's case with respect to allowability of the amended claims under Article 123(2) EPC. It did not add any complexity to the case, but rather simplified the issues to be discussed, in particular as to whether the examples of the application as filed illustrated the now claimed subject-matter. Moreover, this amendment did no result in any difficulty for the respondents to deal with the case, as the issues of novelty and inventive step had not been decided by the opposition division and could only be dealt with after remittal of the case, which had been requested by all parties. In fact the amendment made did not change the issues raised on appeal. Hence, the main request should be admitted into the proceedings and allowability of the claims with respect to Article 123(2) EPC and sufficiency of disclosure should be discussed at the oral proceedings.

Allowability of the amendments

(d) Amended claim 1 of the main request found a basis in claim 1 of the application as filed in which the following features also disclosed in the application as filed according to the passages indicated below had been inserted. The density of

the HMW component being 0.905 to 0.955 g/cm³ found a basis in claim 4. The T_{db} being less than -25°C was based on claim 19. The composition having a M_w/M_n of 30 or less, and the HMW component being characterized as having a substantially uniform comonomer distribution or a reverse comonomer distribution found a basis in original claim 16. The previous requirement in claim 1 that the reverse comonomer distribution was characterized by a molar comonomer content of interpolymer fractions having a Mw greater than or equal to 300,000 g/mole being at least 25 percent higher than the molar comonomer content of interpolymer fractions having a M_w of less than or equal to 100,000 g/mole, which was still present in claims 1 of all auxiliary requests, was based on original claim 18. The only feature taken from the description was the requirement that the composition comprised from 35 to 65 weight percent of the HMW component as described on page 7, lines 27 and 28.

- (e) Although the claims as filed originally had single claim dependencies, this was simply an artefact of the PCT rules requiring single claim dependencies. A skilled person would clearly recognise, in the usual way, that the claims could be combined, particularly since they were all ultimately dependent on claim 1. The single feature taken from the description clearly also was to be read with the claims and therefore combined therewith. The claims always required an LMW and HMW component and the passage on page 7, lines 27 and 28 as filed made mandatory the amount of HMW component inserted in claim 1, meaning that it was simply a preferred feature, although another range was specified on page 7, lines 10 and 11. Accordingly, there was

clearly a basis in the application, as filed, for the combination of features in claim 1 of the main request and the presence of further pointers was not necessary. Furthermore, the examples illustrated said combination of features. The T_{db} value was not mentioned in examples 1 to 4, but it was believed that this was below -25°C , because achieving such low values was linked to a low value of the molecular weight distribution (hereafter MWD) of the LMW component, as explained on page 56 of the application as filed, starting at line 4, which low value of the MWD of the LMW component was necessarily achieved in examples 1 to 4 as a constrained geometry catalyst was used to prepared the LMW component. The other requirements of amended claim 1 were also fulfilled by examples 1 to 4. Examples 5 to 8 and 11 were considered also to illustrate the claims as could be deduced from their detailed description in the application as filed. Accordingly, claim 1 of the main request did not extend beyond the content of the application as filed. The same arguments were valid for the auxiliary requests, which contained in addition further features also based on the application as filed.

VIII. The arguments of opponent 1 and 2 (respondent 1 and 2), insofar as they are relevant to the present decision, may be summarized as follows:

Admittance of the main request

(a) The new main request was late filed and the feature characterizing the reverse comonomer distribution which was present in claims 1 of all requests on appeal had been already addressed by respondent 1

in its notice of opposition with respect to an objection of lack of sufficiency of disclosure. This issue was raised again in reply to the statement setting out the grounds of appeal. There was therefore no justification to remove that feature from claim 1 shortly before the oral proceedings, which amendment furthermore resulted in a broadening of the claimed subject-matter. That broadening made the case more complex, as other methods of determining a reverse comonomer distribution had to be taken into account when arguing sufficiency of disclosure, because achievement of the required T_{db} and the use of a reverse comonomer distribution were related. The new main request represented a fresh case, which therefore should not be admitted, let alone the case remitted to the opposition division for further prosecution on that basis, as it would run counter the economy of the procedure. Should the Board admit that new main request, the case should be remitted to the opposition division.

Allowability of the amendments

- (b) The subject-matter of claim 1 resulted from a multiple selection within the original disclosure. The range introduced into claim 1 for the amount of the homogeneous HMW ethylene interpolymer component was not the preferred range as shown in paragraph [0030] of the patent specification. This was also true in respect of the range of density selected for this HMW component as shown in paragraph [0032] of the patent specification. Moreover, the range inserted for the weight percentage of said HMW component had been taken out of context, as that range was only disclosed in combination with values

for the I_2 and the $I_{21.6}$ melt indices which had been omitted in claim 1 of the main request. The temperature of -25°C for the ductile-brittle transition temperature had no support in the specification, but only in the claims and represented a further selection. Moreover, the amendment that the ratio M_w/M_n is of 30 or less was also not a preferred range as indicated in paragraph [0024] of the specification. In addition claims 4 and 16, as well as the amount defined on page 7, lines 27-29 could not be combined with claim 1, because those passages did not refer to a homogeneous HMW component as in claim 1, but merely to a HMW component. According to respondent 2 none of the examples fulfilled all conditions defined in amended claim 1 of the main request, while respondent 1 was of the opinion that the examples covered a small portions of the ranges defined for the various parameters inserted in claim 1. Accordingly, there was no hint or pointer to the combination of features now defined in claim 1, even not in the examples. According to established case law such selections from multiple lists constituted an unallowable amendment. Hence, the subject-matter of the main request extended beyond the content of the application as filed. The same held true for the auxiliary requests which were based also on a multiple selection of features, and merely recited other ranges regarding the density of the HMW component or the molecular weight distribution of the HMW component. In addition, those contained the feature restricting the definition of the reverse comonomer distribution, which necessitated a further selection. Hence, the auxiliary requests also were in violation of Article 123(2) EPC.

- IX. The appellant requested that the decision under appeal be set aside and the case be remitted to the department of first instance on the basis of the main request or one of the first to sixth auxiliary requests, all filed with the letter of 27 July 2017.
- X. The respondents requested that the appeal be dismissed. They furthermore requested that the main request not be admitted to the proceedings. If the main request were admitted, or if the main request were not admitted but any of the auxiliary requests were found to meet the requirements of Articles 83, 84 and 123 EPC, remittal of the case to the department of first instance was requested.

Reasons for the Decision

Admittance of the main request

1. The new main request differs from the previous main request in that claim 1 does not define that the reverse comonomer distribution is characterized as the molar comonomer content of interpolymer fractions having a M_w greater than or equal to 300,000 g/mole being at least 25 percent higher than the molar comonomer content of interpolymer fractions having a M_w of less than or equal to 100,000 g/mole. This request was submitted with letter of 27 July 2017, i.e. more than three years after the rejoinders of the respondents.
- 1.1 As the request represented a change to the appellant's complete case as defined in Article 12(2) RPBA, its

admittance may thus be considered at the Board's discretion under Article 13(1) RPBA, taking into account the stipulations of Article 13(3) RPBA.

- 1.2 In the present case the opposition division had decided on a single point concerning sufficiency of disclosure of the invention without having taken any decision on whether or not the claimed subject-matter met the requirements of Article 123(2) EPC on which it had given a preliminary positive opinion. With the statement setting out the grounds of appeal the appellant had appropriately addressed the issue which lead to the revocation of the patent while maintaining requests containing all other amendments which had been previously filed in order to address other issues, to the exception that the ductile-brittle transition temperature T_{db} was not defined to be "*determined from critical strain energy release rate, G_c , measurements in the Charpy mode*" (see point IV above) in order to overcome the objections addressed in the contested decision.

- 1.3 While the replies to the statement setting out the grounds of appeal (section 3.2 of the rejoinder of respondent 1 and section 2.1 of the rejoinder of respondent 2) already contained objections for lack of compliance with Article 123(2) EPC on the ground that the subject-matter of claim 1 amounted to an unallowable combination of features separately disclosed in the application as filed and further sufficiency objections including one regarding the specific reverse comonomer distribution, it was only after these points were indicated in the communication of the Board that the appellant found it appropriate to file an additional request in which the specific reverse comonomer distribution was deleted.

- 1.4 There is no reason for the Board to consider, and this was not even submitted, that the patent proprietor had deliberately chosen before the opposition division not to defend novelty and inventiveness of the subject-matter defined in the new main request avoiding to obtain a decision from the opposition division on that subject-matter and had instead, intentionally limited claim 1 by inserting the feature quantifying the comonomer reverse distribution, so that the board had no reason to consider that the filing of the request at such a late stage amounts to an abuse of the proceedings.
- 1.5 As to the amendment proposed, it does not add complexity to the proceedings, as it does not affect the central question of sufficiency of disclosure decided upon by the opposition division (i.e. regarding the ductile-brittle transition temperature T_{db}) and potentially simplifies the analysis regarding Article 123(2) EPC, as it eliminates one of the features whose combination may amount to an unallowable selection. For these reasons it also does not put the opposing party in a new situation which may require adjournment of the oral proceedings.
- 1.6 In view of this the Board finds it appropriate to exercise its discretion under Article 13(1) EPC by admitting the main request into the proceedings.

Request of remittal

2. With due consideration made for procedural economy of the overall appeal and opposition proceedings, and also because for the Board to assess sufficiency of disclosure, which was the issue on which the contested

decision was based, it was necessary among others to consider the teaching of the patent in suit at its date of filing, which would serve little purpose if the invention as claimed could not be considered to have been disclosed therein, the Board finds it appropriate to exercise its discretion under Article 111(1) EPC by not remitting the case to decide allowability of the amendments under Article 123(2) EPC and deciding on that issue first.

Allowability of the amendments

3. The appellant indicated that claim 1 of the main request resulted of a combination of claim 1 as originally filed with the following features whose disclosure in the application as filed is indicated in brackets:

- Density of the HMW component being 0.905 to 0.955 g/cm³ (claim 4 dependent on claim 1 only)
- M_w/M_n of the polyethylene composition of 30 or less, and the HMW component being characterized as having a substantially uniform comonomer distribution or a reverse comonomer distribution (claim 16 dependent on claim 1 only)
- T_{db} being less than -25°C (claim 19 dependent on claim 1 only)
- The composition comprising from 35 to 65 weight percent of the HMW component (description, page 7, lines 27 and 28).

3.1 In accordance with the established Case Law of the Boards of Appeal of the EPO, the relevant question to be decided in assessing whether the subject-matter of an amended claim extends beyond the content of the application as filed, is whether after the amendment

the skilled person is presented with new technical information (see G 2/10, OJ 2012, 376, point 4.5.1 of the reasons and Case Law of the Boards of Appeal of the EPO, 8th Edition, 2016, II.E.1). In other words, the above mentioned amendments are only allowable if the skilled person would derive the resulting claimed subject-matter directly and unambiguously, using common general knowledge from the application as filed.

3.2 The appellant did not indicate any explicit passage of the original application defining in a single place thereof the claimed combination of features, but rather relied on the various separate passages of the application as filed mentioned above. The Board has no doubt that each of the amended features listed above is as such, i.e. when read in isolation, disclosed in the application as filed to constitute a possible limitation of the subject-matter of claim 1 as filed. This, however, does not allow it to be concluded that the skilled person would implicitly derive the combination of those limitations directly and unambiguously, using common general knowledge, from the application as filed. In this context "implicitly" means that the skilled person would have found this disclosure as necessarily implied by the content of the application as originally filed as a whole.

3.3 The opinion of the appellant that it would be usual practice to consider allowable under Article 123(2) EPC the amendment consisting of the incorporation of several dependent claims into the independent claim they refer to cannot be adhered to by the Board without any reservation. Even if it may be said that a practitioner in the patent field might need to consider combining several dependent claims referring directly or indirectly to an independent claim in order to

provide a suitable limitation of the independent claim they refer to, as each of those dependent claims is a *priori* meant to provide a possible fall-back position (e.g. in case the independent claim they refer to needs to be limited in view of the prior art), the question whether the subject-matter resulting from those various restriction of said independent claim fulfills the requirements of Article 123(2) EPC can nevertheless not be decided schematically, based legally speaking on the mere purpose of those dependent claims. This also is independent of the question whether the dependent claims possess single or multiple dependencies.

- 3.4 Whether an amendment is allowable with respect to Article 123(2) EPC is to be answered on an assessment of the technical disclosure of the application as filed, taking into account the overall circumstances of the individual case under consideration. The test to be applied relies only on what the skilled person would derive directly and unambiguously, using common general knowledge from the application as filed. This includes an analysis of the various features defined in the amended claims and the relationship between those features as disclosed to the reader of the application as filed, be it explicitly through a direct link as expressed in the passages disclosing the various features, e.g. in dependent claims through reference to other claims, or implicitly, e.g. when analysing the function and the interaction of the various features as described in the application as filed, or as known to skilled person based on the conventional knowledge in the art.
- 3.5 In the present case (i) the density of the HMW component, (ii) the polydispersity (M_w/M_n) of the polyethylene composition with the HMW component being

characterized as having a substantially uniform comonomer distribution or a reverse comonomer distribution and (iii) the T_{db} being less than -25°C are defined in dependent claims, the sole link between those features being that they are preferred embodiment of the composition of claim 1, which does not necessarily mean that they all pertain to the same preferred embodiment. It is pointed out in G 2/10 (see point 4.5.3 of the reasons for the decision) that it cannot be considered a principle that where an application discloses a general teaching and specific embodiments, groups thereof or areas, all other potential embodiments or intermediate generalisations falling within the ambit of the general teaching (but not as such disclosed in the application as filed) would thereby, by implication, inevitably also be disclosed. Whether the subject-matter defined now in claim 1 of the main request, which represents a restriction of the subject-matter of claim 1 as filed or a generalisation of a more specific embodiment thereof disclosed in the application as filed is directly and unambiguously derivable from the application as filed can only be decided on a case by case basis having due regard to the technical circumstances of the present case.

- 3.6 The appellant, however, failed to show that the application as filed discloses implicitly or explicitly that the values defined for each of those parameters are meant in the application as filed to be obtained in combination to the extent defined now in claim 1, let alone when the composition comprises from 35 to 65 weight percent of the HMW component, which range of value was also inserted in claim 1 as filed. The appellant did not demonstrate that the combination of ranges of parametric values as defined in amended

claim 1 would become apparent in view of whole structure of the text of the application as filed. A technical analysis of the parameters defined in claim 1 as filed and of those inserted therein, of their relationship and of the process steps described in the application as filed to be used for preparing the polyethylene composition defined by such parameters was not submitted, so that the Board could not conclude that the subject-matter of amended claim 1 would emerge in a direct and unambiguous manner from the application as filed when reading its claim 1 in the light of the application as a whole.

3.7 Submissions made starting from a more specific embodiment of the application as filed and explaining as to why a generalisation of that specific embodiment would result into the subject-matter of claim 1 in a direct and unambiguous manner in the light of the technical information contained in the application as filed were not provided either. It was also not shown that the examples as a whole would provide a pointer to the above definition of features. The appellant indicated in this respect that examples 1 to 8 and 11 would disclose compositions falling within the ambit of claim 1 as amended. Assuming to the benefit of the appellant that this is true, the Board notes that each of those examples are defined not only by the features defined in amended claim 1, but also by additional parametric features such as melt indices and density of the overall composition, and that the values obtained in the examples for each of the parameters defined in claim 1 are not representative of the numerical ranges defined in claim 1. Hence, in view of the examples of the application as filed, it is also not apparent that the subject-matter as defined in claim 1 was

contemplated by the inventor of the present application.

- 3.8 The underlying idea of Article 123(2) EPC is that an applicant or patent proprietor shall not be allowed to improve his position by defining subject-matter not disclosed in the application as filed, since so doing would give him an unwarranted advantage and could be damaging to the legal security of third parties relying on the content of the original application (G 1/93, OJ EPO, 1994, 541, point 9 of the reasons for the decision).
- 3.9 The polyethylene composition of claim 1 was defined on filing in a broad manner, its definition including a few structural features (a LMW ethylene homopolymer and a HMW ethylene copolymer) resulting in a bimodal molecular weight distribution, as well as two ranges of parametric values (polydispersity of the LMW component and ductile-brittle transition temperature T_{db} of the overall composition), with an indication in the rest of the application as filed of preferences for said structural features and a definition of additional parameters which might be used to characterize the composition, as well as corresponding ranges of values. Subsequently introducing some limits into claim 1 on the basis of said preferences or on the basis of said additional parameters and corresponding ranges of values for the purpose of overcoming grounds of opposition based on prior art revealed in proceedings before the EPO, is allowable in view of the requirements of Article 123(2) EPC subject to the condition that the application as filed reveals, at least implicitly in a direct and unambiguous manner the resulting specific combination of features.

3.10 Allowing those various restrictions without there being any - even implicit - indication in the application as filed that the specific combination of newly introduced parametric ranges and of amended restricted ranges was envisaged would be unfair to third parties. It would give an applicant or a patentee who filed a broad speculative claim an unwarranted advantage over other applicants who were the first to attribute any significance to a specific combination of parameters and their ranges of values encompassed by said broad original claim, as such type of selection invention is in principle patentable and even rather usual in the present field of technology. The underlying principle is that any invention for which protection is sought, i.e. in the specific form claimed, and which therefore is meant to provide a contribution to the art justifying a patent monopoly must have been made at the date of filing the application and be properly disclosed therein. As indicated in point 2.3.3 of the reasons for G 1/03 (OJ EPO, 2004, 413) "*applicants deal with the state of the art of which they are aware (see Rule 27(1)(b) EPC)*" (now Rule 43(1)(b) EPC) "*and try to delimit the invention against it. For any further state of the art of which they are not aware, they draft fall-back positions for preferred (and more preferred) embodiments. In this way the invention as set out in the specification may appear like the skins of an onion and it becomes clear where the core of the invention is.*" Amending the subject-matter to address objections raised in view of prior art documents revealed in proceedings before the EPO is acceptable as long as a corresponding fall back position can be considered to be disclosed in the application as filed. In the present case, the application as originally filed did not contain any fall-back position on the basis of

which the combinations of parametric ranges as presently claimed might be considered to be disclosed.

- 3.11 Accordingly, the patent proprietor, on which the burden of proof in demonstrating that an amendment carried out in opposition appeal proceeding does not add subject-matter lies (see Case Law, *supra*, II.E.5), could not convince the Board that claim 1 of the main request meets the requirements of Article 123(2) EPC. The main request is therefore not allowable.

Auxiliary requests

4. Compared to claim 1 of the main request, claim 1 of the first auxiliary request contains the additional feature quantifying the reverse comonomer distribution by a molar comonomer content of interpolymer fractions having a M_w greater than or equal to 300,000 g/mole being at least 25 percent higher than the molar comonomer content of interpolymer fractions having a M_w of less than or equal to 100,000 g/mole. Claim 1 of the second auxiliary request was restricted to the embodiment of the claim 1 of the first auxiliary requests wherein the HMW component has a reverse comonomer distribution and the upper limit for the density of the HMW ethylene interpolymer component was defined to be 0.940 instead of 0.955. Compared to claim 1 of the first auxiliary request, claim 1 of the third auxiliary request was restricted to specific articles made from the composition defined in claim 1 and the the upper limit for the density of the HMW ethylene interpolymer component was defined to be 0.940 instead of 0.955. The subject-matter of claim 1 of the fourth auxiliary request is that of claim 1 of the third auxiliary request, wherein the HMW component of the polyethylene composition has a reverse comonomer

distribution. The composition of claim 1 according to the fifth auxiliary request is that of claim 1 of the first auxiliary request, wherein the HMW component is further defined by an upper limit for the molecular weight distribution (polydispersity) of 3 and an upper limit for the density of 0.940. Claim 1 of the sixth auxiliary request corresponds to claim 1 of the first auxiliary request in which it is specified that the ductile-brittle transition temperature T_{db} is defined to be "*determined from critical strain energy release rate, G_c , measurements in the Charpy mode*".

5. As for the main request, the Board is convinced that each of the additional modifications introduced in claims 1 of the auxiliary requests are disclosed in the application as filed to constitute a possible limitation of the subject-matter of claim 1 as filed. However, the appellant as for claim 1 of the main request did not submit any analysis of the technical features of the invention as described in the application as filed, on the basis of which it could be concluded for the skilled person that the subject-matter of claim 1 as now defined in any of the first to sixth auxiliary requests would emerge in a direct and unambiguous manner from the application as filed, but relied on the same arguments as presented with respect to the main request. It was not disputed that, if the main request was found not to meet the requirements of Article 123(2) EPC, such conclusion would also apply to all auxiliary requests. Accordingly, for the same reasons as given above in respect of the main request, the appellant could not convince the Board that any of the claims 1 of the auxiliary requests meets the requirements of Article 123(2) EPC with the consequence that all auxiliary requests are not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed

The Registrar:

The Chairman:



B. ter Heijden

D. Semino

Decision electronically authenticated