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D E C I S I O N
of 12 July 2005

Case Number: T 0236/04 - 3.3.3

Application Number: 94106280.4

Publication Number: 622380

IPC: C08F 10/06

Language of the proceedings: EN

Title of invention:

Crystalline propylene polymers having high melt flow rate values and a narrow molecular weight distribution

Patentee:

Montell North America Inc.

Opponent:

Novolen Technology Holdings C.V.

Headword:

-

Relevant legal provisions:

EPC Art. 54, 56, 84, 88(3) 89, 123(2), 123(3)
RPBA Art. 10(b)(1), 10(b)(3)

Keyword:

"Novelty (yes)"
"Inventive step (yes)"

Decisions cited:

T 0301/87, T 0155/88, T 0689/90, T 0355/99

Catchword:

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Case Number: T 0236/04 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 12 July 2005

Appellant: Novolen Technology Holding C.V.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office dated
16 October 2003 and posted 2 December 2003
concerning maintenance of European patent
No. 622380 in amended form.

Composition of the Board:

Chairman: R. Young
Members: C. Idez
H. Preglau

Summary of Facts and Submissions

I. The grant of the European patent No. 0 622 380 in the name of Montell North America Inc. in respect of European patent application No. 94 106 280.4 filed on 22 April 1994 and claiming priority of the US patent application No. 54705 filed on 29 April 1993 was announced on 9 September 1998 (Bulletin 1998/37) on the basis of 9 claims.

Independent Claims 1, 5, 6, 7, and 8 read as follows:

- "1. Crystalline propylene homopolymers and copolymers comprising up to 15% in moles of ethylene and/or C₄-C₈ α -olefins produced in polymerization, having P.I. values lower than or equal to 3.7, and having, at a MFR ranging from 600 to 1000 g/10 min., Mw values from 100,000 to 60,000, and at a MFR ranging from 1,000 to 2,000 g/10 min., Mz values higher than or equal to 140,000.

5. A process for the preparation of crystalline propylene homopolymers and copolymers of claim 1, by polymerization of the monomers in the presence of a catalyst comprising the reaction product of:
A) a solid catalyst component comprising an active magnesium halide and, supported on the latter, a titanium compound containing at least one Ti-halogen bond and an electron-donor compound selected among the ethers containing two or more ether functions, and characterized in that under standard conditions, they complex with anhydrous magnesium chloride for less than 60 mmoles per

100 g of chloride, and with the $TiCl_4$ they do not cause substitution reactions, or they do so only at a rate lower than 50 % in moles;

B) an Al-alkyl compound; and optionally

C) an electron-donor [sic] compound selected from 2,2,6,6-tetramethylpiperidine or silicon compounds containing at least one Si-OR bond, where R is a hydrocarbon radical;

or in the presence of a catalyst comprising the reaction product of:

A') a solid catalyst component comprising an anhydrous magnesium halide in active form, on which are supported a titanium compound containing at least one Ti-halogen bond, and an electron-donor compound which can be extracted from the solid with Al-triethyl for at least 70% in moles, said solid having a surface area greater than $20 \text{ m}^2/\text{g}$ after extraction;

B') an Al-alkyl compound;

C') an ether containing two or more ether functions and having the property of complexing with anhydrous magnesium chloride, under standard reaction conditions, for less than 60 mmoles per 100 g of chloride;

or in the presence of a catalyst comprising the reaction product of components (A), (B), and (C') described above, said polymerization of the monomers in the presence of said catalysts comprising the reaction product of components (A), (B) and (C) or of (A'), (B') and (C') or of (A), (B) and (C') being conducted by using a quantity of hydrogen ranging from 0.005 to 0.02 moles per mole of monomer in the case of polymerization reactions in liquid monomer, and from 0.08 to 0.18

mole per mole of monomer in the case of polymerization in gas phase.

6. A fiber produced from the crystalline propylene homopolymers and/or copolymers of claims 1, 2, 3 or 4.
7. A woven or nonwoven web produced from the fiber of claim 6.
8. A fabric material produced from the web of claim 7."

Claims 2 to 4, and 9 were dependent claims.

- II. A Notice of Opposition was filed against the patent by Targor (later Novolen Technology Holdings C.V) on 9 June 1999.

The Opponent requested the revocation of the patent as a whole on the grounds of lack of novelty and lack of inventive step (Article 100(a) EPC).

The opposition was supported *inter alia* by the following documents:

- D1: EP-A-0 600 461;
- D3: EP-A-0 320 150;
- D4: EP-A-0 362 705; and the later filed, but admitted
- D5: EP-A-0 361 494.

III. By a decision announced orally on 16 October 2003, and issued in writing on 2 December 2003, the Opposition Division held that the grounds raised and substantiated by the Opponent i.e. lack of novelty and lack of inventive step did not prejudice the maintenance of the patent in amended form on the basis of Claims 1 to 10 submitted with letter dated 15 August 2003 as main request.

Claims 1 to 10 of the main request read as follows:

- "1. Crystalline propylene homopolymers and copolymers comprising up to 15% in moles of ethylene and/or C₄-C₈ α -olefins produced in polymerization, having P.I. values lower than or equal to 3.7, and having, at a MFR ranging from 1,000 to 2,000 g/10 min., Mz values higher than or equal to 140,000.
2. Crystalline propylene homopolymers and copolymers comprising up to 15% in moles of ethylene and/or C₄-C₈ α -olefins produced in polymerization, having P.I. values from 2.5 to lower than or equal to 3.7, and having, at a MFR ranging from 600 to 1000 g/10 min., Mw values from 100,000 to 60,000.
3. The crystalline homopolymers and copolymers of claim 2, having at an MFR ranging from 800 to 1000 g/10 min., Mw values from 100,000 to 70,000.
4. The crystalline homopolymers of claim 1 or 2, having an isotactic index greater than or equal to 95% and a melt point higher than or equal to 150 °C.

5. The crystalline propylene homopolymers and copolymers of claim 1 or 2, containing less than 10 ppm of Ti, and less than 90 ppm of Cl.

6. A process for the preparation of crystalline propylene homopolymers and copolymers of claim 1 or 2, by polymerization of the monomers in the presence of a catalyst comprising the reaction product of:
 - A) a solid catalyst component comprising an active magnesium halide and, supported on the latter, a titanium compound containing at least one Ti-halogen bond and an electron-donor compound selected among the ethers containing two or more ether functions, and characterized in that under standard conditions, they complex with anhydrous magnesium chloride for less than 60 mmoles per 100 g of chloride, and with the $TiCl_4$ they do not cause substitution reactions, or they do so only at a rate lower than 50 % in moles;
 - B) an Al-alkyl compound; and optionally
 - C) an electron-donor [sic] compound selected from 2. [sic] 2,6,6-tetramethylpiperidine or silicon compounds containing at least one Si-OR bond, where R is a hydrocarbon radical;or in the presence of a catalyst comprising the reaction product of:
 - A') a solid catalyst component comprising an anhydrous magnesium halide in active form, on which are supported a titanium compound containing at least one Ti-halogen bond, and an electron-donor compound which can be extracted from the solid with Al-triethyl for at least 70% in moles, said solid having a surface area greater than

20 m²/g after extraction;
B') an Al-alkyl compound;
C') an ether containing two or more ether functions and having the property of complexing with anhydrous magnesium chloride, under standard reaction conditions, for less than 60 mmoles per 100 g of chloride;
or in the presence of a catalyst comprising the [sic] reaction product of components (A), (B), and (C') described above, said polymerization of the monomers in the presence of said catalysts comprising the reaction product of components (A), (B) and (C) or of (A'), (B') and (C') or of (A), (B) and (C') being conducted by using a quantity of hydrogen ranging from 0.005 to 0.02 moles per mole of monomer in the case of polymerization reactions in liquid monomer, and from 0.08 to 0.18 mole per mole of monomer in the case of polymerization in gas phase.

7. A fiber produced from the crystalline propylene homopolymers and/or copolymers of claims 1, 2, 3, 4 or 5.
8. A woven or nonwoven web produced from the fiber of claim 7.
9. A fabric material produced from the web of claim 8.
10. The woven or nonwoven web of claim 8 wherein the web is a nonwoven web produced by a melt-blown or spun-bonded process."

According to the decision, the main request met the requirements of Article 123(2) and (123(3) EPC. The subject-matter of the claims of the main request was considered as novel over document D1. In that respect, the decision stated that the repetition of Example 26 of D1 made by the Opponent (cf. letter of 16 July 2002 of the Opponent) was not a correct repetition of that example since the metallocene catalyst was supported and a continuous gas phase process was used in the experiment made by the Opponent.

The decision further held that D1 did not disclose the combination of high MFR and high Mz values as required by Claim 1. Concerning Claim 2, the decision stated that the Opponent had not sufficiently proved that the universal Polydispersity Index (P.I) i.e. the ratio M_w/M_n as given in Claim 1 of D1 could be transformed into a rheological P.I that overlapped with the rheological P.I indicated in Claim 2 of the patent in suit.

Concerning inventive step, document D3 was considered as representing the closest state of the art. D3 disclosed propylene polymers produced with Ziegler Natta catalysts having high MFR values and high molecular weight. They exhibited a wide molecular weight distribution, however, which could be a disadvantage for fast spinning process.

Starting from D3, the technical problem was seen in the provision of propylene polymers having high MFR values but more suitable for fast spinning processes.

According to the decision the solution proposed by the patent in suit was to use crystalline propylene polymers having high MFR values combined with high Mw and high Mz and a low P.I of 2.5 to 3.7. These polymers were obtainable by using specific catalyst systems containing di or polyethers as electron donors as defined in Claim 6.

The decision stated that this solution could not be derived from D3 alone or taken in combination with D4 and D5, since the latter documents did not relate to propylene polymers with high MFR values.

Thus, the Opposition Division came to the conclusion that the subject-matter of Claims 1 to 10 involved an inventive step.

- IV. A Notice of Appeal was filed on 4 February 2004 by the Appellant (Opponent) with simultaneous payment of the prescribed fee.

With the Statement of Grounds of Appeal filed on 13 April 2004, the Appellant submitted the following document:

D9a: Hee Ju Yoo; paper from the ANTEC conference 9-13 May 1993, pages 3039-3042 (i.e. pages complementing the document D9: Hee Ju Yoo; paper from the ANTEC conference 9-13 May 1993, pages 3037-3038; cited during the opposition procedure).

It also argued essentially as follows:

- (i) Procedural matters:

(i.1) In its letter dated 9 November 1999, the Patentee had requested the maintenance of the patent in amended form on the basis of Claims 1 to 8 submitted as main request with this letter. This implied that the Patentee had surrendered Claims 1 to 9 as granted.

(i.2) Claims 1 to 8 of 9 November 1999 were restricted in that it was required that the claimed polymers were polymers produced by the process of Claim 5 as granted.

(i.3) The scope of Claims 1 and 2 of the main request submitted with letter of 18 August 2003 of the Patentee was, however, broader than that of Claim 1 of the set of claims submitted with letter of 9 November 1999.

(i.4) Since, however, the Patentee had surrendered Claim 1 as granted, the main request should not have been considered by the Opposition Division since it did contain the limitation present in the claims of 9 November 1999.

(i.5) The Opposition Division had been requested not to consider this main request. The Opposition Division, however, did consider this request without providing any reason for that.

(i.6) Claims 1 and 2 of the main request were seen by the Opposition Division as based on the two alternatives present in granted Claim 1. Thus, the Opposition Division had maintained the patent on the basis of a claim which the Patentee had surrendered in an earlier phase of the opposition procedure. This was unallowable.

(ii) Article 123(2) EPC:

(ii.1) Claim 1 as granted could be interpreted as being directed to

(1) Crystalline propylene homopolymers and copolymers comprising up to 15 % in moles of ethylene and/or C₄-C₈ α -olefins produced in polymerization,

(2) having P.I. values lower than or equal to 3.7, and

(3) and having, at a MFR ranging from 600 to 1,000 g/10 min., M w values from 100,000 to 60,000,

and

(4) at a MFR ranging from 1,000 to 2,000 g/10 min, Mz values higher than or equal to 140,000.

(ii.2) The polymers according Claim 1 as granted should have features (3) and (4), although a polymer could only have one MFR.

(ii.3) Thus, Claim 1 as granted might be interpreted as requiring that the polymers have features (3) or (4); or as requiring that the polymers have a MFR from 600 to 2000, a Mw from 100,000 to 60,000, and a Mz higher or equal to 140,000.

(ii.4) The latter interpretation would be supported by Examples 1 and 2 and by page 2, lines 3-4 of the patent in suit.

(ii.5) Thus, Claims 1 and 2 of the main request were not supported by the application as filed.

(iii) Article 123(3) EPC:

(iii.1) Claim 1 only contained features (1), (2) and (4), and Claim 2 only contained features (1), (2) and (3), while Claim 1 as granted contained features (1), (2), (3) and (4). Thus, Claims 1 and 2 contravened Article 123(3) EPC.

(iii.2) According to Claim 1 as granted a polymer with a MFR of 1000 must have a Mz higher than or equal to 140,000 and a Mw between 60,000 and 100,000.

(iii.3) Each of Claims 1 and 2 of the main request only contained one of said requirements. For this reason, they contravened Article 123(3) EPC.

(iv) The amendment made in Claims 1 and 2 of the main request were not justified by the grounds of opposition. They merely clarified granted Claim 1.

(v) Article 84 EPC:

(v.1) Claim 1 lacked clarity, since no lower limit was indicated for the P.I.

(v.2) Claims 1 and 2 lacked clarity since it was not indicated whether the P.I was the universal one or the rheological one.

(vi) Novelty:

(vi.1) Claim 1 lacked novelty over D1 for the same reasons given in the letter dated 8 October 2003 of the Appellant.

(vi.2) Polymers according to Claim 2 exhibited the following features:

(a) Crystalline propylene homopolymers and copolymers comprising up to 15 % in moles of ethylene and/or C₄-C₈ α -olefins produced in polymerization,

(b) having P.I. values between 2.5 and 3.7, and

(c) at a MFR ranging from 600 to 1000 g/10 min, and

(d) Mw values from 100,000 to 60,000.

(vi.3) Features (a), (c) and (d) were disclosed in D1.

(vi.4) Document D10 (Hee Ju Yoo; "MWD Determination of Ultra High MFR PP by Melt Rheology", The Polymer Processing Society , Ninth Annual Meeting, Manchester, England, April 5-8, 1993; pages 101-102; cited during the opposition procedure) disclosed a correlation between universal P.I and rheological P.I.

(vi.5) If the P.I indicated in Claim 2 was a universal P.I, D1 would be novelty destroying since it disclosed a P.I of 1.8 to 3.5.

(vi.6) If the PI in Claim 2 was a rheological P.I, the range of rheological PI obtained by converting the universal P.I disclosed in D1 would overlap with the range of P.I indicated in Claim 2.

(vi.7) According to the declaration of Mr Morini (one of the inventors of the opposed patent) dated 13 August 2003 (referred to as D8a) and annexed to the letter dated 15 August 2003 of the Patentee, in the range 2.0 to 3.0 for the universal P.I, there was practically no difference with the corresponding rheological P.I, but in the range higher than 3, the rheological PI would be substantially lower than the corresponding universal P.I.

(vi.8) It had further been shown by D10 that there was no substantial difference in the range higher than 3.0 between the universal and the rheological P.I. The correlation found between them in D10 was valid for any MFR polypropylene resin.

(vi.9) The equations of Figures 1 to 3 of document D9a and the correlation disclosed in D10 were valid for the metallocene produced polypropylenes of D1 as well for the Ziegler Natta produced polypropylenes according to the patent in suit.

(vi.10) This was shown by the repetition of Example 26 by Mr Morini (cf. D8a) where the polypropylene exhibited an universal P.I of 2.4 and a rheological P.I of 2.2. These values were substantially the same as those calculated by the equations of D9a and D10.

(vi.11) Thus, there was a range of overlap between the rheological P.I of the polypropylene of D1 (calculated with equations of D9a and D10 from the universal P.I) and the rheological P.I of the polypropylene according to the contested patent.

(vi.12) Thus, Claim 2 lacked novelty over D1.

(vi.13) The subject-matter of Claims 1 and 2 could only be made novel over D1 if the process parameters as specified in Claim 6 were incorporated therein.

V. In its letter dated 30 August 2004, the Respondent (Patentee) argued essentially as follows:

(i) Procedural matters

(i.1) No clear statements had been made by the Respondent in order to surrender or abandon parts of the patent with substantive effect.

(i.2) The main request had been filed 2 months before the oral proceedings before the Opposition Division, and the Opposition Division had allowed this main request.

(i.3) Thus, the request of the Appellant must be dismissed.

(ii) Article 123(2) and 123(3) EPC:

(ii.1) It was evident that only the first alternative mentioned for the interpretation of granted Claim 1 by the Appellant was valid.

(ii.2) Thus the splitting of granted Claim 1 into new Claims 1 and 2 did not introduce added subject-matter. Furthermore no omission occurred by splitting granted Claim 1.

(ii.3) The lower limit of 2.5 for the P.I was disclosed in the application as originally filed at page 6, lines 10 to 13.

(iii) The splitting of granted Claim 1 was necessary in order to delimit the present claims from D1.

(iv) Clarity was not a ground of opposition. The objection of the Appellant was not directed to a amendment in the claim.

(v) Novelty:

(v.1) D1 did not disclose the combination of high MFR with Mz. Thus, Claim 1 was novel over D1.

(v.2) The Appellant had alleged that the universal P.I could be transformed into rheological P.I for all propylene homopolymers using only one master curve.

(v.3) This was not correct. One needed one calibration curve for each special polypropylene.

(v.4) The Appellant had calculated an universal P.I of 3.2 for Example 2 of the patent in suit from D10. D10 however related only to rheological P.I.

(v.5) D8a showed that a polypropylene having a rheological P.I of 3.0 exhibited an universal P.I of 5.1.

(v.6) Statements made by the Appellant (cf. Declaration of Dr Maier of 16 July 2002 annexed to the letter dated 16 July 2002 of the Appellant; referred to as D14) showed that a polypropylene homopolymer having an universal P.I of 3.73 had a rheological P.I of 1.77.

(v.7) Thus, the rheological P.I did not correspond to the universal P.I for all the propylene homopolymers.

(v.8) D1 was totally silent about the rheological data of the polymers.

(v.9) Thus, Claim 2 was novel over D1.

VI. With its letter dated 19 October 2004, the Respondent submitted a declaration of Mr Dinshong Dong dated 8 October 2004 (referred to as D15). The experimental data included in that declaration showed that the rheological P.I could not be transformed into universal P.I without a specific master curve.

VII. With its letter dated 10 May 2005, the Appellant submitted the following documents:

D16: WO-A-00/63261;

D17: EP-B1-0 728 769;

D18: Declaration by Dr Ralph Dieter Maier of 10 May
2005;

D19: International Standard ISO 16014;

D20: US standard ASTM D 6474-1; and

D21: K. Lederer et al., "Molecular Characterization of
Polyolefins", J.M.S-Pure Appl. Chem. Vol. A(33)
Nr.7 (1996), pages 927-940.

It also argued essentially as follows:

(i) In document D18, Example 26 of D1 had been repeated
as closely as possible. This had not been the case in
D14. The polymer of Example 26 showed an universal P.I
of 2.57 and a rheological P.I of 2.42

(ii) The data contained in D15 concerned a range of
universal P.I which was of limited relevance in the
present case.

(iii) Claim 1 violated Article 123(2), 123(3) and 84
EPC, since it did not contain the lower limit of 2.5 of
the rheological P.I.

(iv) The splitting of granted Claim 1 should not have
been allowed, since it merely clarified the ambiguity
of that claim.

(v) The scope of protection of Claims 1 and 2 was broader than that of granted Claim 1, since granted Claim 1 required that a polymer with a MFR of 1000g/min should have a specific Mw and a specific Mz.

VIII. In its letter dated 26 May 2005, the Appellant argued essentially as follows:

(i) The margin of uncertainty of the method of determining the rheological P.I should be at least $\pm 5\%$. For the melt flow rate it was 7%. The standard deviation for Mw, and Mn and universal P.I were given in D19, D20 and D21, respectively.

(ii) The values of rheological PI calculated from D9a and from D10 did not substantially differ.

(iii) The value of 2.42 given in D18 for the rheological P.I of the polymer of Example 26 of D1 was undistinguishable from the value 2.5.

(iv) The value of the MFR given in D8a for the polymer of Example 26 of D1 was indistinguishable from the value of the MFR given for that example in D18, both values being indistinguishable from the value 1,000 indicated in Claim 1. The Mz value was indicated in D18 and was over 140,000.

(v) Thus, Claim 1 lacked novelty over D1.

(vi) In view of the correlations given in D9a and D10 between the rheological P.I and the universal P.I it was clear that the rheological P.I of the polymers

generally specified in D1 or determined from Example 26 were over 2.5.

(vii) Thus, Claim 2 lacked novelty over D1.

(viii) The data given in D15 could not be used to counter argue the correlation shown in D9a and D10, since the values indicated in D15 for the universal P.I were outside the range given in D1.

IX. With its letter dated 12 June 2005, the Respondent submitted four auxiliary requests. It also argued essentially as follows:

(i) Documents D18 to D21 should not be admitted into the proceedings.

(ii) The polymer described in D18 did not correspond to the polymer of Example 26 of D1 (different MFI, different melting point, and different Mw/Mn).

(iii) D18 was not an answer to D15. It was late filed. It should thus be rejected.

(iv) Postponement of the oral proceedings was requested, if the relevance of the late filed documents was evaluated, since the Patentee had had no opportunity to repeat the Example 26 of D1 as made in D18, and in particular to determine the Mz of the polymer of that example.

(v) The statements made by Mr Morini in its declaration (D8a) related to two different polymers. They could not be generalised as done by the Appellant. There was no

general relationship between the universal P.I and the rheological P.I.

(vi) The patent in suit gave a formula how to determine the P.I values. The PI values indicated in Claim 2 could be easily transformed into modulus separation values. Thus, the patent in suit included only one master curve which had to be used with regard to Claims 1 and 2.

(vii) The splitting of granted Claim 1 was justified in view of D1, in particular Example 26 thereof which disclosed according to D8a a propylene polymer having a MFR of about 978 and a P.I of 2.2.

(viii) The lower limit of 2.5 for the P.I was not indicated in granted Claim 1.

(ix) Thus, Claims 1 and 2 did not violate Article 123(2) or Article 123(3) or Article 84 EPC.

(x) Document D18 mentioned a value of 2.42 for the rheological P.I for the polymer of Example 26 of D1, i.e. below 2.5 as required by Claim 2 even if a margin error was taken into account. Furthermore according to D8a, this value would be 2.2.

(xi) The error margin of 7% for the MFR as indicated by the Appellant was out of range. Assuming an error of 1% as shown by the tests carried out by Mr Morini (D8a), the value of MFR indicated in D18 would be clearly below 1,000.

X. In its letter dated 17 June 2005, the Appellant argued essentially as follows:

(i) D18 had been submitted as soon as the data became available.

(ii) D8a listed values for Mw, and Mw/Mn as measured by GPC. Thus, the Respondent could have measured the Mz at that time.

(iii) The Respondent had referred to a special master curve in respect to the rheological P.I in Claims 1 and 2.

(iv) The patent in suit was however silent on any requirement of a master curve. This raised an objection under Article 100(b) EPC.

XI. With its letter dated 24 June 2005, the Respondent submitted five auxiliary requests and the priority document of D1 (i.e. the German patent application DE 42 40 411.8 (referred to below as D1a)).

(i) The new ground of opposition under Article 100(b) EPC should not be admitted.

(ii) The patent in suit included a formula to transform rheological data into rheological P.I values. Thus, it included a special master curve.

(iii) The Appellant himself had filed evidence that a master curve was needed (cf. D14).

(iv) In the priority document Example 26 was not disclosed. Thus, this example was not prior art according to Article 54(3) EPC.

(v) New auxiliary request 1 corresponded to the claims as granted. According to decision G 4/93 the Patentee would be entitled to file claims the subject-matter of which was broader than that of the set of claims accepted by the Opposition Division.

(vi) Thus, the Respondent requested the rejection of the claims as maintained by the Opposition Division based on Article 123(2) and 123(3) EPC.

XII. Oral proceedings were held before the Board on 12 July 2005.

At the beginning of the oral proceedings, the Respondent, when asked to present its requests, indicated that it intended to make the first auxiliary request submitted with its letter dated 24 June 2005 (i.e. corresponding to the Claims as granted) its main request.

Following observations from the Board concerning the possible consequences of the order of requests chosen by the Respondent on the discussion of the issue of *reformatio in peius*, the Respondent then indicated that its main request was based on the set of Claims 1 to 10 on which the Opposition Division decided to maintain the patent in suit.

Concerning the main request of the Respondent, the discussion focussed firstly on the issues of extension of subject-matter (Article 123(2) EPC), of extension of scope of protection (Article 123(3) EPC), and of clarity (Article 84 EPC).

(a) Concerning these issues, while essentially relying on their arguments presented in the written procedure, the Parties made the additional submissions which may be summarized as follows:

(a.1) By the Appellant:

(a.1.1) Claim 1 as originally filed was ambiguous in that it could be interpreted either as requiring that a propylene polymer with a melt flow rate of 1,000 had a Mw in the range of 100,000 to 60,000 or a Mz of at least 140,000, or as requiring that a propylene polymer with a melt flow rate of 1,000 had a Mw in the range of 100,000 to 60,000 and a Mz of at least 140,000 MW.

(a.1.2) Consequently, the splitting of original Claim 1 into Claims 1 and 2 of the main request generated amendments which were not directly and unambiguously derivable from the application as originally filed, since Claim 1 of the main request only referred to the Mz of at least 140,000 and since Claim 2 thereof only referred to a Mw between 100,000 and 60,000.

(a.1.3) Since Claims 1 and 2 referred only to one of the feature Mz or Mw in relation to a propylene having a MFR of 1000, they also contravened Article 123(3) EPC.

(a.1.4) It was clear from the description as originally filed that the lowest value of the P.I was 2.5 (cf. page 3, lines 45 to 46). Thus, Claim 1 as originally filed implicitly contained that feature. While this lower limit had been incorporated in Claim 2 of the main request, it was absent from Claim 1, which therefore contravened Article 123(2) EPC.

(a.1.5) There was no indication in Claim 2 as to whether the P.I was a rheological P.I or the universal P.I. Furthermore, as shown by documents D9 and D10 there were several methods for determining the rheological P.I. Thus, the incorporation of the value 2.5 in Claim 2 rendered this claim unclear.

(a.2) By the Respondent:

(a.2.1) It was evident that granted Claim 1 referred to two different regions of MFR, i.e. from 600 to 1,000 and from 1,000 to 2,000.

(a.2.2) In order to overcome the objection of novelty in view of Example 26 of D1, a splitting of granted Claim 1 and the introduction of a lower limit of P.I in respect of one of the alternatives encompassed by that claim had been necessary.

(a.2.3) The lower limit of 2.5 for the P.I was supported by the application documents as originally filed.

(a.2.4) The introduction of a lower limit of the P.I in Claim 2 could not give rise to an objection under Article 84 EPC, since Claim 1 as granted already contained a reference to the P.I.

(b) After deliberation, the Board having informed the Parties that the main request met the requirements of Articles 123(2), 123(3) and 84 EPC, the discussion moved to the issues of novelty and inventive step.

Concerning novelty, having regard to the facts that document D1 was a document belonging to the state of the art according to Article 54(3) and (4) EPC, and that a copy of the priority document of D1, i.e. D1a had been submitted by the Patentee with its letter of 24 June 2005, the discussion concentrated (b.1) firstly on the admissibility of document D1a in the procedure, (b.2) secondly on the question of the elements of D1 which were included in the priority document D1a, and (b.3) thirdly on the assessment of novelty in view of D1 in that context.

The arguments presented by the Parties in respect of point (b.1) may be summarized as follows:

(b.1.1) By the Appellant:

(b.1.1.1) Document D1a had been submitted only 15 days before the oral proceedings. Reference was made in that respect to Rule 10(b)(3) of the Rules of Procedure of the Board of Appeal (RPBA).

(b.1.1.2) The Appellant had been taken by surprise by the late filing of the priority document which might change its line of argument concerning the issue of novelty, in particular in view of Example 26 of D1.

(b.1.1.3) Furthermore D1a referred to further documents EP-A-0 485 822 and EP-A-0 485 823 which might be very relevant for novelty.

(b.1.1.4) Thus, postponement of the oral proceedings would appear necessary if D1a would be admitted into the proceedings.

(b.1.2) By the Respondent:

(b.1.2.1) It was the very late filing of experimental data by the Appellant (D18) which had led the Respondent to carry out an inspection of the priority document of D1.

(b.1.2.2) Document D1a was not easily obtainable, and it had been submitted as soon as a copy thereof had been obtained from the German Patent Office.

(b.1.2.3) Document EP-A-0 485 823 was already cited in the description and in the search report of D1. Thus, the Appellant could have cited this document at the beginning of the opposition procedure.

After deliberation, the Board informed the Parties that document D1a would be admitted into the proceedings and that it could be dealt with without adjournment of the oral proceedings.

The arguments presented by the Parties concerning point (b.2) above may be summarized as follows:

(b.2.1) By the Appellant:

(b.2.1.1) Claims 1 to 7 of D1 corresponded to Claims 1 to 7 of D1a.

(b.2.1.2) The passage from page 2, lines 1 to 39 of D1 corresponded to the passage from page 1, line 5 to page 3, line 9 of D1a.

(b.2.1.3) The passage on page 2, lines 41 to 46 of D1 corresponded to the passage on page 3, lines 14 to 21 of D1a.

(b.2.1.4) The passage from page 2, line 49 to page 8, line 28 of D1 corresponded to the passage from page 3, line 23 to page 15, line 23 of D1a.

(b.2.1.5) The Examples 25 to 27 of D1 found their support in D1a on page 5, lines 3 to 6. This passage of D1a referred to the document EP-A-0 485 822, which disclosed examples (i.e. Example 1 and Comparative Example F) corresponding to Example 26 of D1. This document belonged to the content of the priority document.

(b.2.1.6) It was hence requested that the document EP-A-0 485 822 be introduced into the proceedings.

(b.2.2) By the Respondent:

(b.2.2.1) Example 26 of D1 was not disclosed in the priority document.

(b.2.2.2) Document EP-A-0 485 822 only referred to the conditions of polymerization which could be used in the Examples 1 to 24 of D1a.

After deliberation the Board informed the Parties that document EP-A-0 485 822 would not be admitted into the proceedings, and that the part of the description of D1 concerning Examples 25 to 27 did not belong to the state of the art according to Article 54(3) EPC.

While also relying on the submissions made in the written phase of the appeal procedure, the Parties presented additional arguments concerning the novelty of the claimed subject-matter in view of D1 which may be summarized as follows:

(b.3.1) By the Appellant:

(b.3.1.1) Since it was not indicated in the claims whether the parameter P.I referred to the rheological P.I or to the universal P.I i.e. the molecular weight distribution (MWD), no distinction should be made between these two parameters when determining the subject-matter of the claims.

(b.3.1.2) There was a linear correlation between the rheological P.I and the universal P.I as shown in Figure A annexed to the letter of 26 May 2005 of the Appellant.

(b.3.1.3) Since D1 defined a MWD of 1.8 to 2.5 there was a clear overlap with Claim 1 and Claim 2 of the main request in that respect.

(b.3.1.4) The ranges of MFR and of Mw disclosed in D1 (Claim 1; page 2, lines 27 to 34) overlapped with those defined in Claim 2 of the main request.

(b.3.1.5) The propylene polymers of D1 like those claimed in the patent in suit were used in the manufacture of fibers by melt spinning (page 2, lines 1 to 4).

(b.3.1.6) Consequently, the person skilled in the art would have seriously considered to work in the range of overlap.

(b.3.1.7) Furthermore, Claim 4 of the main request was not entitled to the priority of the US patent application 54705 claimed by the patent in suit. Thus, Example 26 of D1 would be novelty destroying for the subject-matter of that claim.

(b.3.2) By the Respondent:

(b.3.2.1) Document D1 was silent on the Mz of the polymers disclosed therein.

(b.3.2.2) Document D14 showed that the rheological P.I and the universal P.I were different.

(b.3.2.3) Document D15 further that a specific master curve for each propylene polymer was necessary to establish the relationship between the rheological P.I and the universal P.I.

(b.3.3.4) The highest value of MFR disclosed in the Examples 1 to 24 of D1 was 305, while the patent in suit required that it should either in the range 600 to 1,000 or in the range 1,000 to 2,000.

Concerning the issue of inventive step, the Appellant indicated that it relied on the submissions made in paragraph 10 of the Statements of Grounds of Appeal and the Respondent made no further comments.

XIII. The Appellant requested that the decision under appeal be set aside and that the European patent No. 622380 be revoked.

The Respondent requested that the appeal be dismissed (main request) or in the alternative to set aside the decision under appeal and to maintain the patent on the basis of one of the auxiliary requests 1 to 5 as filed with letter dated 24 June 2005.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Admissibility*
- 2.1 As indicated above in Section IV., the Appellant has submitted that the Patentee had requested in its letter dated 9 November 1999 the maintenance of the patent in amended form on the basis of Claims 1 to 8 enclosed in that reply.
- 2.2 According to the Appellant, these claims were restricted in that it was required by said claims that the propylene polymers were polymers produced by the process of Claim 5 as granted.
- 2.3 According to the Appellant Claims 1 and 2 of the main request were broader in scope than that of Claim 1 of the set of claims filed with the letter of 9 November 1999, since they did not contain the restriction to the process of granted Claim 5.
- 2.4 Consequently, in the Appellant's view, the main request on which the Opposition Division intended to maintain the patent should not have been considered by the Opposition Division, since the Patentee had surrendered any claims which did not contain such process restriction.
- 2.5 As stated in the decision T 155/88 of 14 July 1989 (not published in OJ EPO), "if a Patentee in a particular case proposes amendments to his claims which arise out of the opposition and which are intended to meet the grounds of objection raised in the opposition by limiting the scope of protection sought, this should

not normally be interpreted as an abandonment of the subject-matter protected by the claims of the patent as granted. Such proposals to amend during the course of opposition proceedings do not normally prevent the patentee from subsequently proposing amendments which effectively reinstate the subject-matter of the claims as granted". As further indicated in that decision, "a proposal to amend by way of limitation should only be interpreted as an irrevocable abandonment of the broader subject-matter of the previous claims if the circumstances make it absolutely clear that such was the real and unambiguous intention of the patentee" (Reasons, point 2.2).

- 2.6 In the present case, while the Patentee had proposed amendments in the course of the opposition proceedings in order to meet the objection of lack of novelty in view of document D1 raised by the Appellant (Opponent), it is evident that no clear statement has been made by the Patentee in order to abandon or surrender parts of its patent with substantive effect.
- 2.7 Consequently, the Patentee was not prevented from submitting the set of Claims 1 to 10 filed as main request with letter dated 15 August 2003 which had a broader scope than the set of claims submitted with its letter dated 9 November 1999. Furthermore, since this set of claims had been filed before the final date (i.e. 18 August 2003) for making written submissions set out in the Summons, issued on 22 October 2002, to attend oral proceedings scheduled to take place on 16 October 2003, the Opposition Division was under the obligation to consider it.

2.8 It thus follows that the arguments of the Appellant concerning the non admissibility of the main request must fail.

3. *Wording of the Claims*

3.1 Article 123(2) EPC

3.1.1 Claims 1 to 10 of the main request differ, in substance from Claims 1 to 9 as originally filed, (i) in that Claim 1 as originally filed has been split into two independent claims concerning the different melt flow ranges of 600 to 1,000 g/10 min (Claim 1) and of 1,000 to 2,000 g/10 min (Claim 2) of the claimed propylene polymers, and (ii) in that a lower limit of polydispersity index has been incorporated into Claim 2.

3.1.2 Concerning feature (i), original Claim 1 read as follows:

"Crystalline propylene homopolymers and copolymers comprising up to 15 % in moles of ethylene and/or C₄-C₈ α-olefins produced in polymerization, having P.I. values lower than or equal to 3.7, and having, at an MFR ranging from 600 to 1,000 g/10 min., Mw values from 100,000 to 60,000, and at an MFR ranging from 1,000 to 2,000 g/10 min., Mz values higher than or equal to 140,000."

3.1.3 It is therefore evident from the grammatical structure of original Claim 1, that it firstly defines common features of the claimed crystalline propylene homopolymers and copolymers in terms of comonomer content and P.I. value, and that it attributes them

specific properties depending on their melt flow rates, i.e. a specific Mw in the range from 100,000 to 60,000 for the polymers having a MFR in the range of 600 to 1,000, or a specific Mz of at least 140,000 for polymers having a MFR in the range of 1,000 to 2,000. In other words, Claim 1 as originally filed must be regarded as relating to two different entities of crystalline propylene homopolymers and copolymers comprising up to 15% in moles of ethylene and/or C₄-C₈ α-olefins produced in polymerization, having P.I. values lower than or equal to 3.7. This concept of two different entities further implies that original Claim 1 must be seen as requiring that a propylene polymer having a MFR of 1000 must exhibit **either** a Mw in the range of 100,000 to 60,000 **or** a Mz of at least 140,000.

3.1.4 Consequently, the splitting of the subject-matter of original Claim 1 into its two originally disclosed entities as separately defined now by Claim 1 and Claim 2 of the main request evidently cannot represent an extension of subject-matter beyond the content of the application as originally filed.

3.1.5 Concerning feature (ii), this feature finds its support in the application as originally filed (cf. page 3, lines 45 to 46 of the published EP-A1-0 622 380).

In this connection, the fact that the same lower limit of P.I has not been introduced in Claim 1 cannot be regarded as infringing Article 123(2) EPC, since Claim 1 as originally filed did not contain such limitation.

3.1.6 Since Claims 3 to 10 of the main request are supported by original Claims 2 to 9, the Board is satisfied that the requirements of Article 123(2) EPC are met by all the claims of the main request.

3.2 Article 123(3) EPC

3.2.1 Claim 1 as granted exactly corresponds to Claim 1 as originally filed. Consequently, the same concept of two different entities defined for original Claim 1 equally applies to granted Claim 1.

3.2.2 Thus, the splitting of the subject-matter of granted Claim 1 into its two entities as defined in Claims 1 and 2 cannot as such generate an extension of scope of protection, quite apart from the fact that Claim 2 contains an additional limitation in respect of the range of P.I.

3.2.3 Since Claims 3 to 10 correspond to Claims 2 to 9 as granted, the Board comes to the conclusion that the requirements of Article 123(3) EPC are met by all the claims of the main request.

3.3 Article 84 EPC

3.3.1 The Appellant has argued that, due to the amendments made in Claims 1 and 2, the clarity of these claims must be examined, and it has thus raised objections under Article 84 EPC concerning several features in Claims 1 and 2 (cf. Sections IV.(v.1), IV.(v.2), XII (a.1.5) above).

- 3.3.2 When amendments are made to a patent during an opposition, Article 102(3) EPC requires consideration as to whether the amendments introduce any contravention of any requirement of the Convention, including Article 84 EPC. Article 102(3) EPC, however, does not allow objections to be based upon Article 84 EPC, if such objections do not arise out of the amendments made (cf. also decision T 301/87; OJ EPO, 1990, 335; Headnote 1).
- 3.3.3 In the present case, the Board notes that Claim 1 as granted contained no lower limit of the P.I but only a higher limit thereof (i.e. 3.7).
- 3.3.4 Furthermore, Claim 1 as granted neither specified whether the P.I was the rheological P.I or the universal P.I nor did it indicate the method for the determination of this parameter.
- 3.3.5 Consequently, the mere introduction of a lower limit of the P.I in Claim 2 cannot hence generate a lack of clarity in relation to the P.I parameter.
- 3.3.6 It thus follows that the raising of these objections under Article 84 EPC by the Appellant against Claims 1 and 2 cannot be allowed.
- 3.3.7 Since, in the Board's view, no objection under Article 84 EPC arises from the splitting of granted Claim 1 into Claims 1 and 2 of the main request, the Board comes to the conclusion that the requirements of Article 84 EPC read in connection with Article 102(3) EPC must be regarded as met by all the claims.

4. *Admission of documents D1a and EP-A-0 485 822 into the proceedings*
- 4.1 As indicated above in Section XI, document D1a, which is the priority document of D1 has been submitted by the Respondent with its letter dated 24 June 2005.
- 4.2 In that respect the Appellant submitted that the filing of document D1a at such a stage of the appeal proceedings, i.e. 2 weeks before the oral proceedings before the Board, represented an amendment to the Respondent's case according to Article 10b(1) RPBA, and that this document should not be admitted according to Article 10(b)(3) RPBA.
- 4.3 In this connection, the Board notes that the Appellant has submitted in its Notice of Opposition filed on 9 June 1999 (cf. page 3, paragraph A) that the European patent application D1 was novelty destroying for the subject-matter of the patent in suit according to Article 54(3) and (4) EPC.
- 4.4 Paragraphs (2) and (3) of Article 54 EPC read as follows:

"(2) The state of the art shall be held to comprise everything made available to the public by means of a written or oral description, by use, or in any other way, before the date of filing of the European patent application.

(3) Additionally, the content of European patent applications as filed, of which the dates of filing are prior to the date referred to in paragraph 2 and which

were published under Article 93 or after that date, shall be considered as comprised in the state of the art."

4.5 Furthermore, for the purposes of Article 54(2) and (3), as indicated in Article 89 EPC, the date of priority shall count as the date of filing of the European patent application. Nevertheless, as stated in Article 88(3) EPC, the right of priority shall cover only those elements of the European patent application which are included in the application whose priority is claimed.

4.6 Since in the present case, the Appellant had not challenged in its Notice of Opposition the validity of the priority claim of the patent in suit, it thus follows from the above considerations that it was only the elements of D1 included in the priority document D1a which could have belonged to the state of the art according to Article 54(3) and (4) EPC, in other words it was only the imported part of disclosure of D1a in D1 which could justify the raising of the objection of lack of novelty under these Articles. This implies that the priority document D1a must be considered as having been implicitly *ab initio* in the opposition procedure.

4.7 Consequently, the filing of a copy of document D1a by the Respondent with its letter dated 24 June 2005 represents only the mere concretisation of the implicit presence of document D1a in the proceedings, and cannot hence amount to a change of the Respondent's case in the sense of Article 10(b)(1) RPBA.

- 4.8 Thus, the Board saw no reason to disregard D1a at the oral proceedings of 12 July 2005.
- 4.9 This conclusion would not have been altered, even if the filing of D1a by the Respondent would be considered as an amendment of its case in the sense of Article 10(b)(1) RPBA, by the reference made by the Appellant to Article 10(b)(3) RPBA. This is because it was the Appellant itself which cited D1 as novelty destroying document according to Article 54(3) and (4) EPC, so that the Appellant should therefore have been reasonably expected to deal with the priority document of D1 without adjournment of the oral proceedings before the Board.
- 4.10 Concerning document EP-A-0 485 822, the Appellant had submitted that, being cited in D1a (page 5, lines 4 to 6), it belonged by way of reference to the content of the priority document D1a, and that it should be introduced into the proceedings, since it inherently provided a support to the Example 26 of D1 in D1a in view of its Example 1 and Comparative Example F.
- 4.11 In that respect, the Board notes that the passage of D1a relied on by the Appellant deals with the polymerization processes used for the manufacture of the polymers exemplified in D1a and merely indicates that "the polymerizations **orientate themselves for example** towards DE-P-40 35 882 (= EP-A2-0 485 822)" (translation and emphasis by the Board), so that it is *prima facie* highly questionable as to whether the disclosure of this latter document is indeed part of the content of D1a (cf. by analogy with T 689/90, OJ EPO 1993, 616, Headnote; points 1, 2(c) and 2(d)).

4.12 Furthermore, even if it were, this would not imply that Example 1 and Comparative Example F thereof would inevitably belong to the content of D1a. On the contrary, in view of Example 1 which relates to propylene polymer having a molecular weight of 58 900, i.e. outside the range claimed for the polymers according to D1a (i.e. 75 000 to 350 000 see claim 1 thereof) and having regard to the fact that Comparative Example F is only presented as a comparative example of EP-A-0 485 822, the Board could only have come to the conclusion that these specific examples did not belong to the content of D1a (cf. by analogy with T 689/90, Headnote, points 2(c)), let alone that they could provide a support for Example 26 of D1 in D1a.

4.13 Consequently, the Board decided not to admit document EP-A-0 485 822 into the proceedings.

5. *Priority*

5.1 While the Appellant in the course of the opposition procedure and of the written appeal procedure never contested the validity of the priority of the patent in suit, it submitted at the oral proceedings before the Board that Claim 4 of the main request was not entitled to the priority of the US patent application No. 54705 filed on 29 April 1993.

5.2 In the Board's view, however, the passage of page 6, lines 22 to 26 of the priority document provides an appropriate support for Claim 4 of the main request.

5.3 The Board is also satisfied, in view of Claims 1, 2, 5 and 6, of the passage on page 6, lines 8 to 10 and of the passage from page 21, line 26 to page 22, line 8 of the US 54705, that the remaining Claims 1 to 3, and 5 to 10 find their support in the priority document.

5.4 It thus follows that the filing date for the subject-matter of Claims 1 to 10 of the main request is the 29 April 1993 (Article 89 EPC).

6. *Novelty*

6.1 Lack of novelty of the claimed subject-matter has been alleged by the Appellant only in view of document D1.

6.2 Document D1, as indicated in the Notice of Opposition, is a document belonging to the state of the art according to Article 54(3) and (4) EPC.

6.3 In that respect, the objection of lack of novelty has been based on the one hand on the general disclosure of D1 and on the other hand on the specific disclosure of Examples 25 to 27, and more particularly in respect of Example 26 thereof.

6.4 Nevertheless, while it is true as submitted by the Appellant at the oral proceedings (cf. Section XII) that the following passages of D1:

Claims 1 to 7;

page 2, lines 1 to 39;

page 2, lines 41 to 46; and

the passage from page 2, line 49 to page 8, i.e.

including Examples 1 to 24,

find their counterpart in the priority document D1a, it is, however, clear that Examples 25 to 27 of D1 are not disclosed in D1a, so that they do not belong to the state of the art according to Article 54(3) and (4) when assessing the novelty of the patent in suit.

6.5 In this connection, the Board notes that Claim 1 of the main request requires that the claimed propylene polymers have

- (a) P.I values lower or equal to 3.7;
- (b) a MFR in the range from 1,000 to 2,000, and
- (c) Mz values higher or equal to 140,000;

and that Claim 2 requires that the claimed propylene polymers have

- (d) P.I values in the range from 2.5 to 3.7;
- (e) a MFR in the range from 600 to 1,000, and
- (f) Mw values in the range from 100,000 to 60,000.

6.6 In that context, the Board observes that the Parties have made contradictory submissions concerning the relationship between the rheological P.I and the universal P.I of propylene polymers. While the Board is unable to establish this fact of its own motion, the Board deems it appropriate, in the present case, to assess novelty by using from the most favourable starting point in that respect for the Appellant, i.e. that the P.I indicated in Claims 1 to 2 of the main request would exactly correspond to the polydispersity (i.e. the ratio Mw/Mn) relied on in D1.

- 6.7 As stated in the decision T 355/99 of 30 July 2002 (not published in OJ EPO), it is not sufficient for a finding of lack of novelty that the claimed features could have been derived from a prior art document, there must have been a clear and unmistakable teaching of the claimed features (Reasons, point 2.2.4).
- 6.8 Thus, the question of novelty boils down as to whether there is in D1 a clear and unmistakable teaching of the combination of features mentioned above in paragraph 6.5 taking into account that the enabling disclosure of a document is not restricted to its worked examples.
- 6.9 Document D1 refers to a polyolefin moulding composition comprising a polyolefin which comprises an olefin having at least 3 carbon atoms, of the formula $R^a-CH=CH-R^b$, in which R^a and R^b are identical or different and are hydrogen or straight-chain or branched C_1-C_{15} -alkyl, or R^a and R^b , together with the atoms connecting them, form a ring system, and from 0 to 10% by weight of ethylene or a second olefin as defined above as comonomer, characterized in that the MFI (230/2.16) is from 5 to 1,000 g/10 min, the MFI (230/5) is from 15 to 3,000 g/10 min, the molecular weight M_w is from 75,000 to 350,000 g/mol, preferably from 80,000 to 250,000, the polydispersity M_w/M_n is from 1.8 to 3.5, preferably 2,0 to 3,0, the viscosity index is from 70 to 300 cm^3/g , preferably 100 to 250 cm^3/g , the melting point is from 120°C to 165°C, preferably 140°C to 165°C and the isotactic block length is from 25 to 150, preferably 30 to 150 and an ether-extractable content of less than 2% by weight, preferably less than 1% by weight based on the total weight of the polymer (Claims 1 to 2; page 2, lines 27

- to 38). Preferably, the olefin having at least 3 carbon atoms is propylene (claim 3; page 2, lines 41 to 42). These compositions may contain further additives such as stabilizers or pigments (claim 4; page 2, lines 43 to 46) and are used in the manufacture of fibres (claims 5 to 7; page 2, lines 21 to 26, and 49 to 53).
- 6.10 In its Examples 1 to 7, D1 discloses propylene polymers having a MFI (230/5) between 48 g/10 min (Example 6) and 194 g/10 min (Example 2), and in its Examples 8, 13, and 19 to 24 propylene polymers exhibiting a MFI (230/2.16) between 16 g/10 min (Example 22) and 305 g/10min (Example 24). The further examples deal with the manufacture of fibers (Examples 9 to 12, 14 to 18).
- 6.11 Although Examples 1 to 7 only mention the MFI (230/5), it is evident that the corresponding MFI (230/2.16) of these propylene polymers would inevitably be even lower than the value indicated for the MFI (230/5).
- 6.12 Consequently the MFR (i.e. MFI at 230/2.16) of the propylene polymers disclosed in the Examples 1 to 8, 13 and 19 to 24 being well below the lower limit set out in Claim 1 (i.e. 1,000) and in Claim 2 (i.e. 600) of the main request for this feature, it is evident that these examples cannot destroy the novelty of the subject-matter of Claims 1 and 2.
- 6.13 Nor could a clear and unmistakable teaching of the combination of features (a), (b), (c) of Claim 1 or of the combination of features (d), (e) and (f) of Claim 2 as set out in paragraph 6.5 be found in the general disclosure of D1.

6.13.1 Concerning Claim 1 this is because, even if one would consider that the values of M_z of the polymers of D1 values were inherently in the range from 108,333 to 600,000 (as calculated by the Appellant in its letter dated 8 October 2003; page 7), one cannot conclude in view of the disclosure of D1, that, when a polymer of D1 has a MFR of 1,000, its M_z would inevitably be at least 140,000 as required by Claim 1 of the main request; and

6.13.2 Concerning Claim 2, this is because, although the range of M_w (75,000 to 350,000), the range of MFR (5 to 1,000) and, as presumed, the range of polydispersity (1.8 to 3.5) of the polymers of D1 do overlap with the corresponding ranges defined for the polymers according to Claim 2 of the main request, one cannot conclude in view of the disclosure of D1 that, when a polymer of D1 has a M_w in the range of 75,000 to 100,000 it has inevitably a MFR in the range of 600 to 1,000 and inevitably a P.I in the range 2.5 to 3.7 as required by Claim 2 of the main request.

6.14 Consequently, the subject-matter of Claims 1 and 2, and by the same token that of Claims 3 to 10 must be regarded as novel over D1 (Article 54(3) and (4) EPC).

7. *Inventive step*

7.1 In that respect, the Board notes firstly that at the oral proceedings before the Opposition Division, the Appellant did not provide arguments concerning inventive step of the subject-matter of the main request (cf. Minutes of the Oral proceedings, point 18).

The Board further notes that during the written phase of the appeal procedure, the Appellant did not present arguments concerning that issue, and that at the oral proceedings before the Board, concerning the issue of inventive step, the Appellant indicated only that it relied on the submissions made in paragraph 10 of the Statement of Grounds of Appeal.

- 7.2 In this connection, the Board observes that paragraph 10 of the Statement of Grounds of Appeal refers back to paragraphs 6 to 9 of the letter dated 8 October 2003 of the Appellant, but that these latter paragraphs do not contain any argument relative to inventive step.
- 7.3 Thus, the Board can only come to the conclusion that no case has been made by the Appellant as regards inventive step of the main request.
- 7.4 The Board sees no reason to criticize the finding of the Opposition Division in this respect (point 3 of the decision under appeal) and concurs with the finding that the subject-matter of claims 1 to 10 involves an inventive step as required by Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

E. Görgmaier

R. Young