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D E C I S I O N
of 7 October 2004

Case Number: T 0658/03 - 3.3.3

Application Number: 96913550.8

Publication Number: 0824554

IPC: C08F 210/00

Language of the proceedings: EN

Title of invention:
Amorphous olefin co/ter-polymers

Patentee:
OPTATECH CORPORATION

Opponent:
Ticona GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 123(2) and (3)

Keyword:
"Amendments - Art. 123(2) and (3) - added subject-matter (yes) (main request, auxiliary requests I, IV, V) extension of protection conferred (yes) (auxiliary request VI)"

Decisions cited:
G 0010/91, T 0133/92, T 0341/92

Headnote:
Any change of attribution of claimed subject-matter in an application or patent having different (sets of) claims for different contracting states, to a contracting state under which this subject-matter was not previously subsumed, amounts to an amendment in the sense of Article 123 EPC. Such an amendment is subject, in principle, to full examination as to its conformity with the requirements of the EPC.

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Case Number: T 0658/03 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 7 October 2004

Appellant: (Proprietor of the patent)	OPTATECH CORPORATION Olarinluoma 7 FI-02200 Espoo (FI)
Representative:	Sundman, Christoffer Patent Agents, Seppo Laine Oy P.O.B. 339 FI-00181 Helsinki (FI)
Respondent: (Opponent)	Ticona GmbH Professor Staudinger Strasse D-65451 Kelsterbach (DE)
Representative:	Hoffmann, Peter Patentanwalt Industriepark Kalle-Albert Rheingaustrasse 196 Gebäude H 391 D-65174 Wiesbaden (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office dated 19 February 2003 and posted 7 April 2003 revoking European patent No. 0824554 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: R. Young
Members: W. Sieber
E. Dufrasne

Summary of Facts and Submissions

I. The mention of the grant of European patent No. 0 824 554, in respect of European patent application No. 96 913 550.8, based on International application PCT/FI96/00253, filed on 7 May 1996 and claiming priority from an earlier patent application in Finland (8 May 1995; FI 952188), was published on 1 March 2000 (Bulletin 2000/09). The granted patent contained two sets of claims, namely Claims 1 to 14 for the contracting states AT, BE, ES, FI, SE and Claims 1 to 10 for the contracting states DE, FR, GB, IT, respectively.

(a) Independent Claims 1 and 11 for the contracting states AT, BE, ES, FI and SE read as follows:

"1. An amorphous and impact resistant co/ter-polymer made from olefin and aryl-substituted cyclic monomers by polymerizing using a catalyst, wherein the substituent is a phenyl- or indanyl-group and the catalyst is a metallocene-catalyst.

11. A process for making co/ter-polymers with improved impact properties from olefins and aryl-substituted cyclic monomers, wherein the comonomer is a phenyl- or indanyl-substituted cyclic monomer and the catalyst is a metallocene catalyst."

Claims 2 to 10 and 12 to 14 were dependent claims directed to elaborations of the subject-matter of Claim 1 and 11, respectively.

(b) Independent Claim 1 for the contracting states DE, FR, GB and IT read as follows:

"A method of improving the impact resistance of amorphous co/ter-polymers made from olefins and aryl-substituted cyclic monomers by polymerizing using a catalyst, characterized by using cyclic monomers substituted with a phenyl- or indanyl-group in an amount of 1 to 90 mol % of the polymer and by carrying out the polymerization in the presence of a metallocene-catalyst."

Claims 2 to 10 were dependent claims directed to elaborations of the subject-matter of Claim 1.

II. A Notice of Opposition was filed on 28 November 2000 by Ticona GmbH, requesting revocation of the patent in its entirety on the grounds of Article 100 EPC, because the claimed subject-matter lacked novelty and inventive step. The opposition was supported by the following document:

D1: *A. Noll*, Homo- und Copolymerisationen von polycyclischen Olefinen mit Ethen unter Verwendung von stereorigiden homogenen Ziegler-Natta-Katalysatoren, Verlag Shaker, Aachen 1993 (Berichte aus der Chemie).

During prosecution of the case before the opposition division, amended sets of claims were filed by the proprietor, by way of a main request (filed on 18 July 2001), auxiliary request I (filed on 19 December 2002) and auxiliary requests II and III (both filed on 19 February 2003).

(a) The main request was based on a single set of Claims 1 to 10 valid for all contracting states whereby these claims corresponded to granted Claims 1 to 10 for the contracting states DE, FR, GB and IT (section I(b), above).

(b) Auxiliary request I differed from the main request in that Claim 1 contained the further restriction that the polymerization was carried out "*in a solvent at 10-90°C for 0.2-20 h*" (inserted after "a metallocene-catalyst").

(c) Auxiliary request II differed from the main request in that Claim 1 specified that the polymerization was carried out "*in a conventional way in the presence of an ansa-metallocene-catalyst in a suitable solvent at 10-90°C for 0.2-20 h*". Furthermore, Claim 7 was deleted and the remaining claims renumbered.

(d) Claim 1 of auxiliary request III was considerably recast during the oral proceedings and in its final form referred to the "*use of phenyl-norbornene or indanyl-norbornene … for producing ethylene-phenylnorbornene copolymer or ethylene-indanylnorbornene copolymer having higher heat resistance and higher impact resistance and lower hardness compared to corresponding ethylene-norbornene copolymers with the same molar ratios*".

Dependent Claims 2 to 7 corresponded to Claims 4 to 6 and 8 to 10 of the main request but were reformulated as use claims.

III. By a decision announced orally on 19 February 2003 and issued in writing on 7 April 2003, the opposition division revoked the patent because none of the requests met the requirements of the EPC.

(a) The decision held that the subject-matter of Claim 1 of the main request was, in essence, directed to a process of producing amorphous co/terpolymers characterized by using cyclic monomers substituted with a phenyl or indanyl group in an amount of 1 to 90 mole% and carrying out the polymerization in the presence of a metallocene catalyst. A process with these technical features was already disclosed in D1. Since the same result, ie improving the impact resistance, was inevitably achieved in D1, the subject-matter of Claim 1 lacked novelty over D1.

(b) As regards auxiliary requests I, it was held that the amendment "in a solvent" in Claim 1 did not have a proper basis in the description as originally filed which disclosed the use of "a suitable solvent" and that the polymerization was done "in a conventional way". Thus, Claim 1 did not meet the requirements of Article 123(2) EPC. In addition, it was held that a method comprising increasing the glass transition temperature of the co/terpolymers to more than 25°C as claimed in Claim 7 was not supported by the application as originally filed.

(c) Auxiliary request II was not allowed with respect to Article 123(2) EPC because the combination of

features required in Claim 1 was not properly supported by the application as originally filed.

(d) Auxiliary request III was not allowed because the reformulation of the claims to the use of specific monomers for producing ethylene/phenylnorbornene copolymer or ethylene/indanylnorbornene copolymer having improved properties compared with the corresponding ethylene/norbornene copolymers led to a broadening of the claimed subject-matter contrary to Article 123(3) EPC.

IV. On 6 June 2003, a notice of appeal was filed against the above decision by the proprietor (hereinafter referred to as the appellant) with simultaneous payment of the prescribed fee.

With the statement of grounds of appeal, filed on 18 August 2003, the appellant withdrew auxiliary requests II and III of the decision under appeal and submitted auxiliary requests IV and V.

(a) Auxiliary request IV differed from auxiliary request I in that the solvent referred to in Claim 1 was defined as a "*suitable*" solvent, Claim 7 was deleted and the remaining claims renumbered accordingly.

(b) Auxiliary request V differed from auxiliary request IV in that Claim 1 further specified that the polymerization was carried out "*in a conve[n]tional way*".

The appellant argued that, in effect, the present invention comprised the **use** of phenyl- and indanyl-norbornene in olefin-co/terpolymerization with metallocene catalysts **for improvement** of the impact properties in comparison with the corresponding norbornene copolymers, even if the claims as such were drawn up for a method. In fact, the claims were directed to a new use of a known compound involving a previously hidden technical functional feature. Such an invention was novel and inventive over the cited prior art.

V. The opponent (hereinafter referred to as the respondent) provided its counterarguments in a letter filed on 1 May 2004. The main request and auxiliary request I should not be allowed for the reasons given in the decision under appeal. Furthermore, the respondent raised an objection as to lack of sufficiency because the application as originally filed did not indicate a method of measurement for the impact resistance which was an essential feature of the claims. As regards auxiliary requests IV and V, these requests did not meet the requirements of Article 84 EPC since the terms "suitable" and "conventional" were unclear. There was no explanation in the application as originally filed as to the meaning of a suitable solvent and a conventional polymerization.

VI. In a communication, issued on 24 June 2004 accompanying a summons to oral proceedings, the board pointed out that, although the claims of the main request corresponded to the granted claims for DE, FR, GB and IT, the claims of the main request represented an amendment with respect to the contracting states AT, BE,

ES, FI and SE since the granted patent contained a different set of claims for those contracting states. Consequently, the amendment of the claims was subject to a full examination as to its compatibility with the requirements of the EPC, as far as the contracting states were concerned. In this context, the board noted that a method of improving the impact resistance of amorphous co/ter-polymers made from olefins and aryl-substituted cyclic monomers as claimed in all requests was not disclosed in the application as originally filed (Article 123(2) EPC). Furthermore, objections concerning the use of the terms "solvent", "suitable solvent" and "in a conventional way" in auxiliary requests I, IV and V were raised.

VII. In a letter filed on 7 September 2004, the respondent agreed with the objections raised by the board.

VIII. In a letter also filed on 7 September 2004, the appellant withdrew its request for oral proceedings and informed the board that it would not attend the oral proceedings scheduled for 7 October 2004. It argued that the expressions "in a suitable solvent" and "in a conventional way" had a clear meaning to a person skilled in the art. In addition, an auxiliary request VI was submitted comprising 7 claims. Independent Claim 1 read as follows:

"A method of improving the impact resistance of amorphous co/ter-polymers made from olefins and aryl-substituted cyclic monomers by polymerizing using a catalyst, characterized by using indanyl-norbornene (1,4-methano-1,4,4a,9a-tetrahydrofluorene) in an amount of 1 to 90 mol % of the polymer and by carrying out the

polymerization in a conventional way in the presence of a metallocene-catalyst in toluene at 10 - 90°C for 0.2 - 20 h."

Claims 2 to 7 corresponded to granted Claims 4 to 6 and 8 to 10 for the contracting states DE, FR, GB, IT.

IX. On 6 October 2004, the appellant filed three sets of amended pages adapted to auxiliary request IV (pages 2 and 3), auxiliary request V (pages 2 and 3) and auxiliary request VI (pages 2, 3 and 5), respectively.

X. On 7 October 2004, oral proceedings were held before the board at which the respondent, but not the appellant, was represented. Because the latter party had been duly summoned, however, the oral proceedings were continued in its absence in accordance with Rule 71(2) EPC.

As regards the main request, auxiliary requests I, IV and V, the respondent basically relied on its written submission. Auxiliary request VI was not allowable because the method claimed therein lacked clarity (the term "conventional" in Claim 1 was unclear), support (insofar as the data in the application as originally filed did not support the required improvement in impact resistance) and sufficiency of disclosure (as regards a Shore-hardness of less than 90°A in Claim 5). Furthermore, the respondent accepted that the board had the power fully to examine the claims of all requests, as far as the contracting states AT, BE, ES, FI and SE were concerned, and that auxiliary request VI did not meet the requirements of Article 123(3) EPC.

XI. The appellant requested that the patent be maintained

- on the basis of Claims 1 to 10 filed on 18 July 2001 (main request); or, in the alternative
- on the basis of one of the auxiliary claim sets in a cascade manner with

  auxiliary request I filed on 19 December 2002 (Claims 1 to 10);

  auxiliary request IV filed on 18 August 2003 (Claims 1 to 9);

  auxiliary request V filed on 18 August 2003 (Claims 1 to 9);

  auxiliary request VI filed on 7 September 2004 (Claims 1 to 7).

The respondent requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 EPC and Rule 64 EPC and is therefore admissible.

2. *Main request*

2.1 Procedural matter

2.1.1 As apparent from section I, above, the granted patent contains two sets of claims, namely

(a) a first set for the contracting states AT, BE, ES, FI and SE directed to "an amorphous and impact resistant co/ter-polymer made from olefin and aryl-substituted cyclic monomers by polymerizing using a catalyst" (independent Claim 1) and "a process for making co/ter-polymers with improved impact properties from olefins and aryl-substituted cyclic monomers" (independent Claim 11), and

(b) a second set for the contracting states DE, FR, GB and IT directed to "a method of improving the impact resistance of amorphous co/ter-polymers made from olefins and aryl-substituted cyclic monomers by polymerizing using a catalyst".

2.1.2 By way of contrast, the main request contains only one set of claims for all designated states which is identical with the second set of the granted claims, ie granted Claims 1 to 10 for the contracting states DE, FR, GB and IT. Thus, as far as the contracting states DE, FR, GB and IT are concerned, the claims of the main request are neither open to an objection under Article 84 EPC nor, since Article 100(c) EPC was not a ground for opposition, to an objection under Article 123(2) EPC.

2.1.3 Any change of attribution of claimed subject-matter, in an application or patent having different (sets of) claims for different contracting states, to a contracting state under which this subject-matter was not previously subsumed, amounts to an amendment in the sense of Article 123 EPC. Such an amendment is subject,

in principle, to full examination as to its conformity with the requirements of the EPC.

2.1.4 In this particular case, therefore, the claims of the main request represent an amendment with respect to the contracting states AT, BE, ES, FI and SE, since the claims for these contracting states no longer relate to an amorphous and impact resistant co/terpolymer and a process for making co/terpolymers with improved impact properties but refer now to a method of improving the impact resistance of amorphous co/terpolymers made from olefins and aryl-substituted cyclic monomers.

Hence, as far as the contracting states AT, BE, ES, FI and SE are concerned, the amendment made during the opposition proceedings is subject to a full examination as to its compatibility with the requirements of the EPC, including the provisions of Article 123(2) EPC (G 10/91, OJ EPO 1993, 420; section 19 of the reasons).

2.1.5 It follows from the above, that the board finds itself in a situation where it has on the one hand no power to examine whether the claims of the main request meet the requirements of Articles 123(2) EPC as far as the contracting states DE, FR, GB and IT are concerned, and, on the other hand, not only has the power but is obliged fully to examine the claims of the main request for compliance with the EPC, as far as the contracting states AT, BE, ES, FI and SE are concerned.

2.2 Amendments (as far as AT, BE, ES, FI, SE are concerned)

2.2.1 It may be convenient to recall at this juncture that Claim 1 of the main request relates to a method of

improving the impact resistance of amorphous co/ter-polymers made from olefins and **aryl-substituted cyclic monomers** (emphasis by the board).

2.2.2 According to the normal use of language, the wording of Claim 1 presupposes that co/terpolymers made from olefins and **aryl-substituted cyclic monomers** are generally known whereby the impact resistance of these generally known co/terpolymers containing aryl-substituted cyclic monomers is improved by the measures specified in Claim 1, *inter alia* by using cyclic monomers substituted with a phenyl or indanyl group. Thus, the standard of comparison for the improvement of the impact resistance are co/terpolymers containing aryl-substituted cyclic monomers.

2.2.3 However, a method of improving the impact resistance over such a standard of comparison is not disclosed in the application as originally filed. The only disclosure in the description as originally filed with respect to an improvement in impact resistance is to be found in Example 5, page 7, line 25 to page 8, line 14 where it is demonstrated that the use of phenyl- and indanyl substituted cyclic monomers yields co/terpolymers with improved impact resistance in comparison with the corresponding **norbornene** copolymers, ie **non-substituted** cyclic monomers. Hence, the application as originally filed teaches an improvement in impact resistance in connection with a different standard of comparison. In other words, the application as originally filed is directed to improving the impact resistance of co/terpolymers made from olefins and **norbornene** but not to improving the impact resistance

of co/terpolymers made from olefins and **aryl-substituted cyclic monomers**.

2.2.4 Also none of Claims 1 to 14 as originally filed (identical with granted Claims 1 to 14 for the contracting states of AT, BE, ES, FI and SE; section I(a), above) discloses a method of improving the impact resistance of co/terpolymers containing aryl-substituted cyclic monomers. The only basis for a method claim is to be found in Claim 11 as originally filed (identical with granted Claim 11 for the contracting states of AT, BE, ES, FI and SE). However, there is no basis in the claims themselves or in the description as originally filed (section 2.2.3 above) to "detach" the improved impact properties that are automatically obtained when carrying out the process of Claim 11 from the co/terpolymers and to transcribe them into a method of improving the impact resistance of co/terpolymers made from olefins and aryl-substituted cyclic monomers thereby introducing a new standard of comparison.

2.2.5 The appellant argued that, in effect, the present invention comprises the **use** of phenylnorbornene and indanylnorbornene in olefin-co/terpolymerization with metallocene catalysts **for improvement** of the impact properties in comparison with the corresponding norbornene copolymers. Although "such an invention" might be derivable from page 1, lines 5 to 21 of the application as originally filed, and in particular from page 7, line 25 to page 8, line 14 (section 2.2.3, above), Claim 1 does not refer to such an invention. Therefore, this line of argumentation cannot succeed.

2.2.6 In summary, Claim 1 of the main request, as far as the contracting states AT, BE, ES, FI and SE are concerned, does not meet the requirements of Article 123(2) EPC.

2.2.7 Under these circumstances, a further examination as to whether the claims of the main request contain further deficiencies, eg with respect to Article 123(3) EPC, is not necessary.

2.3 In view of the above, it is evident that the subject-matter of Claim 1 of the main request and, by the same token, that of Claims 2 to 10, does not meet the requirements of Article 123 (2) EPC as far as the contracting states AT, BE, ES, FI and SE are concerned. Since, furthermore, the board can only decide on a request in its entirety, the appellant's main request, ie maintenance of the patent on the basis of Claims 1 to 10 filed on 18 July 2001 for all contracting states, must be refused.

3. *Auxiliary requests I, IV and V*

Similar considerations apply to auxiliary request I, IV and V, since each Claim 1 of these requests equally relates to a method of improving the impact resistance of amorphous co/terpolymers made from olefins and aryl-substituted cyclic monomers by using, *inter alia*, cyclic monomers substituted with a phenyl or indanyl group. The nature of the claimed method is not affected by the further restrictions introduced into the respective Claim 1 of auxiliary request I ("in a solvent at 10-90°C for 0.2-20 h", section II(b), above), of auxiliary request IV ("in a suitable solvent at 10-90°C for 0.2-20 h", section IV(a), above) and of

auxiliary request V ("in a conventional way … in a suitable solvent at 10-90°C for 0.2-20 h", section IV(b), above). Consequently, the claims of these requests do not meet the requirements of Article 123(2) EPC as far as the contracting states AT, BE, ES, FI and SE are concerned, and the request as a whole has to be refused.

4. *Auxiliary request VI*

4.1 Claim 1 of auxiliary request VI (section VIII, above), refers to a method of improving the impact resistance of amorphous co/terpolymers made from olefins and aryl-substituted cyclic monomers requiring, *inter alia*, the use of indanyl norbornene.

4.2 If one assumes, in favour of the appellant, that the data in Examples 2 and 5 in the application as filed (corresponding to Examples 2 and 5 in the granted patent) demonstrate that an ethylene/indanyl norbornene copolymer has improved impact resistance over an ethylene/phenyl norbornene copolymer, and one further accepts the generalization of these specific examples, the claims of auxiliary request VI would meet the requirements of Article 123(2) EPC. This finding would be valid for all the contracting states.

4.3 However, the granted claims for the contracting states AT, BE, ES, FI and SE do not contain a claim directed to a method of improving the impact resistance of amorphous co/terpolymers made from olefins and aryl-substituted cyclic monomers. This set of claims contains only claims directed to an amorphous and impact resistant co/terpolymer and a process for making

co/terpolymers with improved impact properties (section I(a), above). Consequently, the amendment of Claim 1 leads to a broadening of Claims 1 to 14 as granted for the contracting states AT, BE, ES, FI and SE, contrary to Article 123(3) EPC. Again, because the board can only decide on a request as a whole, auxiliary request VI, valid for all designated states, must be refused.

4.4 In view of the above, it was unnecessary for the board to rule on the further issues raised by the respondent during oral proceedings with respect to the claims of auxiliary request VI, namely lack of clarity, lack of support and lack of sufficiency.

5. Finally, the board does not consider itself prevented by reasons of procedural law from refusing auxiliary request VI for non-compliance with Article 123(3) EPC, although the objection under Article 123(3) EPC was brought up for the first time during the oral proceedings which was not attended by the appellant. As set out in T 341/92 (OJ EPO 1995, 373, section 2 of the reasons), the extension of the protection conferred arises solely from a comparison of the granted claims with the relevant claims of auxiliary request VI, and therefore not from facts which were only introduced into the case during the oral proceedings. Consequently, no conflict with the opinion of the Enlarged Board of Appeal in G 4/92 (OJ EPO 1994, 149) arises.

Furthermore, the appellant could not be taken by surprise by the fact that the claims of auxiliary request VI would be fully examined for compliance with the EPC. The board had§ pointed out in a communication

accompanying the summons to oral proceedings that the claims then on file represented an amendment with respect to the contracting states AT, BE, ES, FI, SE and, as far as these contracting states were concerned, were open to a full examination. This equally applies to the claims of auxiliary request VI. Thus, the absent appellant - albeit duly summoned - could have expected the question to be discussed as to whether the claims of auxiliary request VI, filed only one month before the oral proceedings, meet the requirements of the EPC, including Article 123(3) EPC. Were it otherwise, no decision could ever be issued at the end of an oral proceedings where a proprietor, as in the present case, files an auxiliary request just before the scheduled hearing but does not attend, thereby rendering such hearings pointless and a waste of time, as well as offending the general principle of legal certainty, ie the general interest of the public in the termination of legal disputes (see T 133/92 of 18 October 1994, section 7 of the reasons; not published in the OJ EPO).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

E. Görgmaier R. Young