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**D E C I S I O N**  
**of 1 March 2001**

**Case Number:** T 0467/98 - 3.3.3

**Application Number:** 89870121.4

**Publication Number:** 0354893

**IPC:** C08F 4/649

**Language of the proceedings:** EN

**Title of invention:**

Process for producing large symmetrical polymer particles

**Patentee:**

FINA TECHNOLOGY, INC.

**Opponent:**

Exxon Chemical Patents Inc.  
TARGOR GmbH

**Headword:**

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**Relevant legal provisions:**

EPC Art. 84, 123(3)

**Keyword:**

"Claims - clarity (no)"  
"Amendments - broadening of claim (yes)"

**Decisions cited:**

G 0009/92, G 0004/93

**Catchword:**

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Case Number: T 0467/98 - 3.3.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.3**  
**of 1 March 2001**

**Appellant:** FINA TECHNOLOGY, INC.  
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**Representative:** Leyder, Frances  
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**Respondent:** Exxon Chemical Patentes Inc.  
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**Representative:** Ricker, Mathias, Dr.Dipl-Chem.  
Bardehle . Pagenberg . Dost . Altenburg .  
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**Former opponent:** TARGOR GmbH  
(Opponent 2) Rheinstr. 4 G  
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**Representative:** Stark, Vera, Dr.  
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**Decision under appeal:** Interlocutory decision of the Opposition Division  
of the European Patent Office posted 6 March 1998  
concerning maintenance of European patent  
No. 0 354 893 in amended form.

**Composition of the Board:**

**Chairman:** P. Kitzmantel

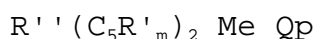
**Members:** B. ter Laan  
A. Lindqvist

## Summary of Facts and Submissions

I. Mention of the grant of European patent No. 0 354 893 in respect of European patent application No. 89 870 121.4, filed on 31 July 1989, claiming priority from an earlier application in the USA (US 229361 of 5 August 1988), was published on 2 November 1994 (Bulletin 94/44) on the basis of a set of eighteen claims of which Claim 1 read:

"A process for producing symmetrical polypropylene particles comprising:

- (a) prepolymerizing a precipitated active complex of an organoaluminum compound and a metallocene catalyst by contacting said complex with propylene at a temperature from 25°C to 40°C
- (b) further prepolymerizing the complex by heating to the polymerization temperature as rapidly as possible, and
- (c) polymerizing the propylene at a polymerization temperature higher than 50°C and lower than 85°C thereby producing symmetrical polypropylene particles between 300 and 800 microns with 90% of the particles being larger than 100 microns, wherein said metallocene catalyst is described by the formula;



(C<sub>5</sub>R'<sub>m</sub>) is a cyclopentadienyl or substituted cyclopentadienyl; R' is hydrogen or hydrocarbyl radical(s) having 1-20 carbon atoms, and each R'

can be the same or different; R'' is an alkylene radical having 1-4 carbon atoms, a silicon hydrocarbyl compound, a germanium hydrocarbyl group, an alkyl phosphine, or an alkyl amine, and R'' acts to bridge the two (C<sub>5</sub>R'<sub>m</sub>) rings; Q is a hydrocarbon radical having 1-20 carbon atoms or a halogen; Me is a group 4b, 5b, or 6b metal of the Periodic Table of Elements; m is an integer from 0-4; and p is an integer from 0-3."

Claims 2 to 18 referred to preferred embodiments of the process according to Claim 1.

II. On 27 June 1995 and on 2 August 1995 two Notices of Opposition against the granted patent were filed, in which the revocation of the patent in its entirety was requested on the grounds set out in Articles 100(a) (both Opponents) and 100(b) as well as 100(c) EPC (Opponent II). The latter opposition was withdrawn by a letter dated 9 February 1998.

The oppositions were, *inter alia*, supported by the following documents:

D1: EP-A-0 327 649 (equivalent to WO-A-88/05057) and

D2: EP-A-0 302 424

III. By a decision issued in writing on 6 March 1998 the Opposition Division maintained the patent in amended form. That decision was based on four sets of claims as the main and three auxiliary requests, all of which were filed during the oral proceedings held on 10 February 1998.

Claim 1 of the main request was identical to the one as granted. Claim 1 of the first auxiliary request differed from the main request in that the term "as rapidly as possible" in step (b) was replaced by "as rapidly as practical so as to avoid producing a large quantity of polymer below the final polymerization temperature". In the second auxiliary request that term was replaced by "at a rate of at least 4.5°C per minute" and in the third auxiliary request it was replaced by "at a rate of at least 5°C per minute".

The Opposition Division held that Claim 1 of the main request did not comply with the requirements of Article 123(2) EPC since the expression "as rapidly as possible" had not been disclosed as such in the original application.

The first auxiliary request did not comply with Articles 84 and 123(3) EPC, because the terms "a large quantity" and "as rapidly as practical" in Claim 1 were unclear and the scope of the latter term was broader than that according to the granted version.

The second auxiliary request met all the requirements of the EPC and was therefore allowed. In particular, it was found to be novel, since none of the cited documents disclosed the claimed combination of features, and inventive as no combination of any of the cited documents would render the claimed subject-matter obvious.

A late-filed document was not considered to be relevant and was disregarded accordingly, pursuant to Article 114(2) EPC.

IV. On 8 May 1998 the Appellant (Proprietor) lodged an appeal against the above decision and paid the prescribed fee simultaneously. With the Statement of Grounds of Appeal, which was filed on 9 July 1998, the Appellant resubmitted the 18 claims of the first auxiliary request already filed before the first instance.

In essence, in the written submissions and during the oral proceedings held on 1 March 2001 the Appellant argued that

- (i) commercial reactors were not capable of achieving the minimum heating rate of 4.5°C per minute to which the claimed subject-matter was now limited. The definition of heating "as rapidly as practical" would remedy this drawback;
- (ii) the term "as rapidly as practical" was not open in respect of the heating step since the practical application of the principles of reactor design and operation would determine the maximum heating rate according to the circumstances;
- (iii) the two terms "as rapidly as possible" and "as rapidly as practical" were interchangeable, so that the amendment did not change the scope of the claim. Even if one would consider the two terms to have different meanings, the latter was narrower in scope than the former, because a heating rate that would be "possible" would not necessarily also be "practical" due to factors such as material stress, availability of heating

media, cost, material of construction, etc.  
Therefore, the claimed subject-matter did not  
contravene Article 123(3) EPC.

V. In reply to the Statement of Grounds of Appeal, the  
Respondent (Opponent 1) argued that

- (i) there was no reason why the required minimum  
heating rate could not be achieved with a large  
scale reactor;
- (ii) the term "as rapidly as practical" was unclear  
since no measurement or common understanding  
existed as to its meaning. What was practical  
would depend on several different factors, such  
as e.g. the experience of the person working  
with the reactor;
- (iii) heating "as rapidly as possible" implied one  
specific rate for a given environment, whereas  
the meaning of the word "practical" did not  
necessarily indicate the highest possible rate.  
Therefore, Article 123(3) was not complied with;
- (iv) the late filed document which was disregarded by  
the Opposition Division was detrimental to the  
novelty of the patent in suit and should  
therefore be introduced into the proceedings.  
However, that line of reasoning was not further  
pursued after the Board had pointed out that the  
Respondent had not filed an appeal by itself and  
was therefore a party to the proceedings as of  
right pursuant to Article 107, second sentence,  
EPC.



VI. The Appellant requested that the decision under appeal be set aside and, as the main request, that the patent be maintained on the basis of the claims filed with the submission of 29 June 1998 as the first auxiliary request, or, alternatively, on the basis of the claims as allowed by the Opposition Division.

The Respondent requested initially that the patent be revoked, but at the oral proceedings restricted its request to the dismissal of the appeal.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Procedural matters*

2. The Respondent, which had not filed any appeal by itself, initially requested the revocation of the patent. However, in accordance with Decisions G 9/92 and G 4/93 (OJ EPO 1994, 875), neither a non-appealing opponent nor the Board of Appeal may challenge the maintenance of the patent as amended in accordance with the appealed decision (no *reformatio in peius*). The respondent's request for revocation of the patent is therefore at variance with the jurisprudence of the Boards of Appeal and any argument and/or evidence submitted in this respect is to be disregarded.

#### *The wording of the claims*

3. The issue under discussion concerns in essence the replacement of the term "heating as rapidly as

possible" by the term "heating as rapidly as practical".

3.1 Since page 9, lines 12 to 17, of the application as originally filed (page 4, lines 27 to 29 of the patent specification) discloses that "This second prepolymerization step is preferably carried out while heating the reaction mixture as rapidly as practical to the polymerization temperature so as to avoid producing a large quantity of polymer below the final polymerization temperature.", there can be no doubt that Claim 1 of the main request complies with Article 123(2) EPC.

3.2 As regards Article 123(3) EPC, the parties disagreed as to which of the terms was broader.

3.2.1 The Appellant argued that "Simply because a heating rate would be possible would not make such a heating rate practical due to such factors as material stress, availability of heating media, cost, material of construction, etc. What is "possible" implies the realm of imagination while what "is practical" is grounded in reality." (Statement of Grounds of Appeal, page 2, first paragraph). The Respondent, on the other hand, stated that "the latter term "as rapidly as possible" can be only one specific heating rate for a given environment, such as a specific reactor, a given set of parameters,... and a certain chemical environment,... In contrast thereto, the term "as rapidly as practical" simply defines a lower limit of a heating rate at which the prepolymerization may be conducted in an appropriate manner and leaves it open whether or not this heating rate is chosen as being "practical" is also the

highest possible heating rate." (letter of 3 December 1998, page 2, point 4).

- 3.2.2 Normally, an interpretation of terms is based upon the disclosure of the patent in suit. In this case, however, the specification is completely silent about what is meant by "practical". Also the Examples do not give any information in that respect.

Nevertheless, the Board cannot agree with the Appellant's arguments for the following reasons. The expression used in the patent as granted is not just "heating as possible", but "heating as rapidly as possible". The latter term implies that the heating is carried out as quickly as the circumstances allow, regardless of e.g. costs or other economical factors, whereas the expression "practical", in the Board's opinion, would take into account such factors as costs, as, in fact, the Appellant itself stated (see point 3.2.1 above), and possibly also other factors such as availability of heating media, experience of the person carrying out the process, etc. Therefore, upon interpretation, the meaning of "as rapidly as practical" is broader than "as rapidly as possible".

- 3.2.3 In view of the above, Claim 1 of the main request does not comply with the requirements of Article 123(3) EPC.

- 3.3 For the reasons given below, the main request also does not fulfil the requirements of Article 84 EPC.

- 3.3.1 The very fact that the exact meaning of the two terms "as rapidly as practical" and "as rapidly as possible" forms the core of the present discussion is

already an indication that neither of those terms is clear.

- 3.3.2 As pointed out by both parties, the notion of what is practical is subject to the circumstances in which the reaction is carried out. However, if the exact conditions of the process are not defined in the claim, as is the case here, there is no means to establish where exactly the limits of the claim lie.

Also, what was not practical at the priority date of the patent in suit and was therefore excluded from the originally claimed scope, may become practical at a later date, when, for instance, the technical and economical conditions have changed, thus allowing to "shift the goal posts" of the claim.

- 3.3.3 Furthermore, the term "a large quantity of polymer" is likewise objectionable under Article 84 EPC because it is unprecise and subjective and its meaning or its exact limits are not explained anywhere in the patent specification.

- 3.3.4 In view of the above, Claim 1 of the main request does not fulfil the requirements of Article 84 EPC.

4. For the above reasons the main request must be refused.

5. Since the sole auxiliary request, that the patent be maintained on the basis of the claims as allowed by the Opposition Division, in effect amounts to a request to dismiss the appeal, that request needs not be considered.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed

The Registrar:

The Chairman:

E. Görgmaier

P. Kitzmantel