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D E C I S I O N
of 28 January 2003

Case Number: T 0868/00 - 3.3.3

Application Number: 91303306.4

Publication Number: 0456353

IPC: C08J 5/18

Language of the proceedings: EN

Title of invention:
Polyolefin film

Patentee:
UCB, S.A.

Opponent:
Hoechst AG
Bayer AG, Leverkusen Konzernverwaltung RP Patente Konzern
UCB, S.A.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 108
EPC R. 64

Keyword:
"Appeal deemed to be filed and admissible (yes)"
"Novelty (yes)"
"Inevitability of undisclosed features (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0868/00 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 28 January 2003

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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 15 June 2000 revoking European patent No. 0 456 353 pursuant to Article 102(1) EPC.

Composition of the Board:

Chairman: R. J. Young
Members: P. Kitzmantel
J. H. van Moer

Summary of Facts and Submissions

I. Mention of the grant of European patent No. 0 456 353 in respect of European patent application No. 91 303 306.4 in the name of Imperial Chemical Industries Plc, now assigned to UCB S.A., which had been filed on 15 April 1991 claiming a GB priority of 4 May 1990, was announced on 26 June 1996 on the basis of 10 claims, independent Claims 1, 9 and 10 reading as follows:

"1. A polymeric film comprising a biaxially oriented substrate layer of a propylene polymer, characterised in that the film has an X-ray scattering phi (ϕ) scan full width half maximum (FWHM) value, of greater than 16.0°."

"9. A method of producing a polymeric film comprising a biaxially oriented substrate layer of a propylene polymer, characterised in that the film has an X-ray scattering phi (ϕ) scan FWHM value, of greater than 16.0°."

"10. A package comprising an article wrapped in a film according to any one of claims 1 to 8 or produced by the method of claim 9."

Claims 2 to 8 were dependent on Claim

II. Notice of Opposition requesting revocation of the patent in its entirety on the grounds of Art. 100(a) and (b) EPC was filed by

Hoechst Aktiengesellschaft (Opponent I) on 20 March 1997,

Bayer AG (Opponent II) on 25 March 1997, and

UCB S.A. (Opponent III) on 26 March 1997.

In the course of the first instance opposition proceedings Opponent III withdrew its opposition and became the proprietor of the patent in suit (hereinafter Patentee II).

III. By its decision orally announced on 21 March 2000 and issued in writing on 15 June 1995, the Opposition Division revoked the patent.

This decision is based on an amended set of seven claims submitted at the oral proceedings before the Opposition Division on 21 March 2000, Claim 1 reading as follows (added features are underlined):

"1. A polymeric film comprising a biaxially oriented substrate layer of a propylene polymer, characterised in that the film has an X-ray scattering phi (ϕ) scan full width half maximum (FWHM) value, of greater than 16.0° measured with the machine direction of the film perpendicular to the beam direction and an X-ray scattering chi (χ) scan MD/TD ratio of from 1.1 to 1.5."

Granted Claims 2, 5 to 8 and 10 were essentially maintained as new Claims 2, 3 to 6 and 7; granted Claims 3, 4 and 9 were deleted.

The terms in Claim 1 "X-ray scattering phi (ϕ) scan full width half maximum (FWHM) value" and "X-ray scattering chi (χ) scan MD/TD ratio" are hereinafter abbreviated to, respectively, "ϕ-scan value" and "χ-scan value".

It was held in that decision that the amended set of claims complied with the requirements of Article 123(2) and (3) EPC but that the subject-matter of Claim 1 lacked novelty over polypropylene films prepared according to Example I of D2 (US-A-3 308 215). This conclusion resulted from the Opposition Division's assumption that - although such data were not disclosed in D2 - the ϕ- and χ-scan requirements of present Claim 1 must be met by the polypropylene films of Example I heat treated at an oven temperature of 60°C (i) because the melting characteristics of the polypropylene base resin showed that it was of a quality typical for polypropylene films and (ii) because the balanced biaxial stretching conditions and the heat treatment at 60°C inevitably led to high levels of molecular orientation causing ϕ- and χ-scan values as required by present Claim 1.

IV. On 23 August 2000 Patentee II lodged an appeal against the decision of the Opposition Division and paid the appeal fee on the same day. The Statement of Grounds of Appeal was submitted on 25 October 2000.

The first two paragraphs of that statement read:

"This patent was revoked solely on the grounds of lack of novelty in the light of document D2 (US3308215-A), and in particular in the light of Example 1 thereof.

The patentees have now repeated Example 1 of US3308215-A with heat treatment at a temperature of 60°C, and the phi-scan and chi-scan values of the resulting film were respectively 1.63 and 13.9°, both of these figures being outside the ranges specified in claim 1 as amended after grant but before oral proceedings before the Opposition Division."

The third and last paragraph of the Statement of Grounds of Appeal the Patentee comprises (i) the conclusion that the subject-matter of Claim 1 was novel over the disclosure of document D2 and (ii) the Appellant's procedural requests.

V. The Respondent I (Opponent I), in its submission dated 11 May 2001, criticized that the information in the Statement of Grounds of Appeal concerning the experimental conditions of the Appellant's reworking was insufficient and that this evidence could not, therefore, establish novelty over D2.

Moreover, the Respondent I requested that the appeal be considered not to be filed because, in its opinion, the Statement of Grounds of Appeal failed to discuss the reasons of the decision under appeal.

VI. In a communication dated 27 August 2002 the Board's Rapporteur raised doubts as to the correctness of the Opposition Division's conclusion of lack of novelty, commented on several issues concerning the interpretation of Claim 1, summoned to oral proceedings on 28 January 2003 and set a time limit for response to this communication of 1 month prior to these proceedings.

VII. With a letter of 5 September 2002 the Respondent II (Opponent II), with a letter dated 20 December 2002 the Respondent I and with a letter dated 27 December 2002 the Appellant submitted that they would not attend the oral proceedings.

VIII. On 28 January 2003 oral proceedings were held in the absence of all parties.

IX. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the set of claims underlying the decision under appeal (filed on 21 March 2000).

The Respondent I requested that the appeal be dismissed.

Reasons for the Decision

1. The Notice of Appeal was filed and the fee for appeal was paid within the time limit set in Article 108 EPC and in accordance with Rule 64 EPC. The request of Respondent I that the appeal should be deemed not to have been filed is therefore rejected because all requirements of the EPC for the coming into existence of an appeal have been fulfilled.

2. The appeal is also admissible because the Statement of Grounds of Appeal which was filed within the time limit prescribed in Article 108 EPC, albeit short, contains all that is required, i.e. the legal and factual reasons on which the case for setting aside the decision should be based.

Since this decision essentially resides on the assumption that the films according to Example I of D2 which are heat-treated at 60°C must satisfy the ϕ- and χ-scan requirements of Claim 1 of the opposed patent, the submission of the ϕ- and χ-scan results of a repetition of the manufacture of such films is of utmost factual relevance. Since these ϕ- and χ- scan results confirm the position of the Appellant that these films did not anticipate the claimed subject-matter, there can be no doubt about the legal

consequences envisaged by the Appellant which are furthermore positively formulated in the last paragraph of its Statement of Grounds of Appeal.

3. *Novelty*

3.1 Example I of document D2 discloses a film made from polypropylene which had been prepared in the presence of hydrogen, having a melt flow index between 30 and 45 measured at 190°C, using a 10 kg load, which had been:
(a) stretched by a tubular process with a stretch ratio of 6.5 in both directions,
(b) collapsed, slit and opened up to give a double width film, and
(c) fed into a parallel tenter at various oven temperatures (87, 83-84, 83, 88, 88, 83 and 60°C) in order substantially to remove the sag and wrinkles in the film.

3.2 The subject-matter of present Claim 1 relates to a polymeric film comprising a biaxially oriented substrate of a propylene polymer characterized by certain values of the X-ray scattering phi (ϕ) scan full width half maximum (FWHM) and of the X-ray scattering chi (χ) scan MD/TD ratio (Claim 1).

3.2.1 The ϕ- and χ-scan values can be considered to be a measure of, respectively, the out-of-plane and the in-plane orientation of the polymeric crystals (page 2, lines 26 to 37).

3.2.2 The propylene polymer may be a homo- or copolymer and comprises preferably a modulus improver, e.g. a polyterpene resin (page 2, lines 22 to 23, 41 to 58).

Preferably, the film comprises an additional polymeric heat-sealable layer (page 3, lines 14 to 16).

3.2.3 The required ϕ- and χ-scan values are obtained by stretching of the film at a temperature above the glass transition temperature of the polymer(s), conveniently at a temperature of from about 145 to 165°C; a balanced biaxial stretching/orientation being preferred (page 4, lines 9 to 14). After stretching, the film may be heat-treated at a temperature in the range from 40 to 70°C (page 4, lines 24 to 27).

3.2.4 The films of "inventive" Example 1 comprise a core layer of propylene homopolymer comprising 12% by weight of a polyterpene resin, an inner heat-sealable layer of an ethylene-butene-1 random copolymer, and an outer heat-sealable layer of the same random copolymer additionally comprising small amounts of silicon dioxide and dimethylsiloxane.

A three layer tube was blow-extruded, stretched six times in both directions, opened out to form a flat film and passed over a roller at temperature of from 50 to 70°C.

The resulting film exhibited a ϕ-scan value of 18.5° and a χ-scan value of 1.2.

3.3 It is apparent from a comparison of these summaries of the relevant disclosures of D2 and of the patent in suit that the respective manufacturing conditions are essentially identical and that the issue of novelty therefore hinges on the appreciation of the contribution to the ϕ- and χ-scan values of the materials constituting the film.

3.4 The decision under appeal, in its conclusion of lack of novelty, relied on the assertion of Opponent I that "polypropylene films usually on the market are not considerably distinct from each other (e.g. concerning the melt index and the melting point", that in

consequence "the starting material of the opposed patent in comparison to D2 cannot be too much different" and that "[t]herefore the end product of D2 must be the same" (Section 3 of Reasons, 5th paragraph).

3.4.1 On the contrary, the Opposition Division found the Patentee's counter-argument not convincing, namely that "polypropylene films of the market differ considerably (e.g. in view of the catalyst used, etc.)" because this argument had not been mentioned in previous submissions which only referred to melt index and melting point as parameters influencing the ϕ- and χ-scan values (Section 3 of Reasons, 5th paragraph).

3.4.2 Nor did the Opposition Division accept the Patentee's argument that, in view of its reproduction of films according to Example I of D2, which were heat-treated at 80 and 100°C and which exhibited ϕ-scan values below 16°, it could be expected that similarly low ϕ-scan values would be obtained at a heat-treatment temperature of 60°C. In this case the Opposition Division concluded that "those phi-scan values ... are not significantly different from each other and also from the lowest limit of 16° according to the opposed patent" and that "[i]t is thus possible that the trend observed (higher phi-scan at higher temperature) is due to experimental error" (Section 3 of Reasons, 6th paragraph).

3.4.3 Since the Opposition Division also found, on the basis of the Patentee's own comparative experiments, that "it is expected that ... the film heat treated at 60°C according to D2 would also have a chi-scan MD/DT ratio within the range indicated in Claim 1 of the opposed patent", it concluded that this film "would inevitably

exhibit a phi-scan and a chi-scan MD/DT ratio value within the corresponding ranges disclosed in Claim 1 of the opposed patent ..." (Section 3 of Reasons, 7th and 8th paragraph).

3.5 In the Board's judgment, this conclusion is not justified by the available evidence because the meaning attributed by the Opposition Division to the term "inevitable", namely at best "very probable", is at variance with the far more stringent meaning of this term, i.e. "incapable of being avoided or evaded".

Since the nature of the polypropylene base material used according to Example I of D2 which influences the ϕ- and χ- scan values of the final film cannot, for lack of information in D2, be accurately ascertained and in the absence of compelling evidence able to supplement this lacking information, it cannot be convincingly concluded that the films manufactured according to Example I of D2 which have been heat-treated at 60°C must exhibit the ϕ- and χ-scan values according to Claim 1 of the patent in suit.

3.6 Moreover, the Appellant's new experimental evidence which at least shows that films according to Example I of D2 may have ϕ- and χ-scan values outside the ranges required by Claim 1 of the patent in suit falsifies the Opposition Division's conclusion of lack of novelty.

The Respondent's criticism of this new evidence is not based on any objectively ascertainable arguments or evidence. Under the circumstances this criticism must be disregarded.

3.7 The Board therefore concludes that the Opponents failed to discharge the burden of proof resting on them in order to establish that any of the films according to

Example I of D2, especially the one heat-treated at 60°C, meets the ϕ- and χ-scan requirements of present Claim 1.

3.8 By parity of reasoning the same conclusion applies to the films according to Example II of D2, heat-treated at temperatures of from 70 to 100°C.

4. Since the decision under appeal did not comment on the Opponents' arguments brought forward under Article 100(b) EPC nor either, those under the remaining aspects of Article 100(a) EPC, the Board finds it appropriate to remit the case for further prosecution to the Opposition Division (Article 111(1) EPC).

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance for further prosecution.

The Registrar

E. Görgmaier

The Chairman:

R. Young