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Anmeldenummer / Filing No / N° de la demande : 80 304 181.3

Veröffentlichungs-Nr. / Publication No / N° de la publication : 31 201

Bezeichnung der Erfindung: Fast crystallising polyester compositions

Title of invention:

Titre de l'invention :

Klassifikation / Classification / Classement : C08G 63/68

ENTSCHEIDUNG / DECISION

vom / of / du 30 September 1987

Anmelder / Applicant / Demandeur : Imperial Chemical Industries PLC

Patentinhaber / Proprietor of the patent /

Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence : Polyester crystallisation

EPO/EPC/CBE Articles 54(3) and 88 EPC

Kennwort / Keyword / Mot clé : "Novelty (No) - Whole content of earlier application"
"Priority - Disclosure by implication (denied)"

Leitsatz / Headnote / Sommaire

If on the true interpretation of a statement made by an Applicant or Patentee, it may be considered that a particular subject-matter has been expressly abandoned together with the complete deletion of the appropriate Claim and in addition all support therefor in the specification, the same cannot be reinstated.

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Case Number : T 61/85

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 30 September 1987

Appellant : IMPERIAL CHEMICAL INDUSTRIES PLC
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Decision under appeal : Decision of Examining Division 012
of the European Patent Office
dated 13 September 1984 refusing
European patent application
No. 80 304 181.3 pursuant to
Article 97(1) EPC

Composition of the Board :

Chairman : P. Lançon

Members : G. Szabo

C. Payraudeau

Summary of Facts and Submissions

- I. European patent application No. 80 304 181.3, filed on 21 November 1980 and published on 1 July 1981 with publication number 31 201, claiming priority of the British applications on 12 December 1979 and 12 March 1980 (GB-79 42 872 and 80 08 298), was refused by the decision of the Examining Division of the European Patent Office dated 13 September 1984. The decision was based on Claim 7 filed on 22 September 1983. Claim 7 was worded as follows:

"A method of producing a fast crystallising polyester comprising polymerising a polyester to produce a polyester containing at least 90 mole % of repeating units selected from ethylene terephthalate or tetramethylene terephthalate units wherein the polymerisation is conducted in the presence of sufficient of a metal compound selected from alkali metal and alkaline earth metal bases and alkali metal and alkaline earth metal salts of monocarboxylic acids the anion of which compound reacts with the polymer produced during the polymerisation to give a polyester having a crystallisation peak temperature on heating (T_n) at least 5°C lower than the same polymer produced in the absence of the alkaline metal salt or corresponding base."

- II. The stated ground for the refusal was lack of novelty, at least as far as the subject-matter of independent Claim 7 was concerned, in view of EP-A-21 648 under Article 54(3) EPC. The claim in question was not entitled to priority from application No. 80 08 298 in the United Kingdom, because the latter did not specifically disclose an essential feature of the claim, namely that the polyesterification is conducted in the presence of a base

or monocarboxylic acid salt of an alkali metal or alkaline earth metal. On the contrary, the relevant passage would suggest that the reagent must be added after the polymerisation stage.

III. The Appellant filed an appeal against the decision on 3 November 1984 with the payment of fee on that date, and submitted a Statement of Ground on 12 January 1985. Later on, the Appellant filed an auxiliary set of claims with an amended first claim.

IV. The Appellant substantially argued in his submissions as follows:

(a) The view of the Examining Division in construing the priority document was very narrow. The relevant passage should be seen as providing ionic end groups on the polymer by reaction with acid end groups, i.e. at any stage. The generality of the description in that document suggested that in all kinds of reactions the metal hydroxide would be present in view of hydrolysis. The neutralisation took place all the time the polyester was formed.

(b) The cited EP-A-21 648 only disclosed a reaction with sodium hydroxide for the preparation of polyesters for calibration purposes.

V. The Appellant requests that the decision is set aside. Alternatively, original Claim 1 should be reinstated and referred back to the first instance whilst Claim 7 would then be deleted.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. The issue before the Board is that of lack of novelty under Article 54(3) EPC, i.e. anticipation by the content of an earlier European application. It is agreed by all concerned that the cited specific disclosure from EP-A-21 648 was not included in the priority documents of the same application and it is, therefore, its filing date in the EPO which is relevant (4 June 1980). The questions arise whether or not Claim 7 of the present application EP-31 201 covers the cited process in the earlier application and whether the embodiments of the claim which are so affected could derive priority from the priority application GB-80 08 298 filed on 12 March 1980. The true priority of unaffected embodiments of the claim is irrelevant since the Convention allows multiple priorities "for any one claim" (Article 88(2) EPC, second sentence).
3. The cited passage in EP-A-21 648 (page 13, line 27 to page 14, line 30) describes a polymerisation reaction from terephthalic acid, ethylene glycol and antimony trioxide in the presence of specific quantities of sodium hydroxide. In addition to the initial amount of sodium hydroxide, further quantities of this base are added later on before continuing the reaction. It is irrelevant for what purpose the synthesis was described, i.e. calibration or some other use. With regard to this prior art, Claim 7 of the present application covers, for the preparation of fast crystallising polyesters, inter alia those processes which provide polyester "containing at least 90 mole % of repeating units selected from ethylene terephthalate ... units" wherein the polymerisation is conducted in the

presence of an alkali metal base to give at least a 5° reduction of crystallisation temperature. It has never been argued by the Appellant that the above product in the citation would not provide such result. Thus, the process described in EP-A-21 648 anticipates Claim 7 unless the priority filing supports the claim in this particular respect.

4. The relevant passages in the priority document, application GB-80 08 298 specifically refer to at least 90 mole % ethylene terephthalate units (page 4, lines 15-22) within the products and emphasises the importance of acid end groups having the formula of "-X-M⁺" where M⁺ is preferably an alkali metal ion. As to methods for preparing such polyesters, the document states (page 2, lines 20-31):

"The ionised end groups may be introduced into the polyester by reaction of the acid end groups, introduced by way of the acidic components, with a base, preferably a base containing an alkaline metal. Alternatively, the ionic end groups may be introduced by the polymerisation of materials of formula X-R-Y wherein X is a group capable of being polymerised onto the polyester chain, R is an aliphatic, cycloaliphatic or aromatic group and Y is an ionic group selected from metal carboxylates, sulphonates, sulphinates, borates, phosphates, phosphites and phosphinates where the metal is preferably a metal of groups IA and IIA of the Periodic Table of Elements ..."

5. It is evident that the disclosure in the priority document envisages only two methods for the purpose of obtaining ionised end groups. The first would, as construed by the Examining Division, do this after the polyester has been formed, whilst the second one would use materials for

polymerisation which contain such groups before the polymerisation reaction. The only example illustrates the latter technique by incorporating some potassium monomethyl terephthalate, i.e. an alkali metal salt of a monocarboxylic acid. The former method, using an alkali metal base is not demonstrated specifically.

6. The Appellant argued that the first method should not be interpreted narrowly, confined to the case where the alkali metal base is added after the completion of the reaction. It should rather be construed as covering both possibilities, i.e. adding the base during polymerisation or after it. The Appellant's argument about the presence of free base in consequence of inevitable hydrolysis is irrelevant. Since no excess of base is envisaged, the equilibrium would be necessarily pushed towards full neutralisation by the excess of available acid groups. The reference to "end groups" was read by the first instance as an indication of polyesters only, to the exclusion of monomers. This interpretation is not convincing since the functional groups of monomers could also be seen as "end groups" in view of their position.

Thus, a broad interpretation of the use could have been envisaged.

7. Even if one accepts the Appellant's submissions in this respect, however, and interprets the cited statement as covering both the use of bases during and after polymerisation, this does not necessarily mean that the process now confined to the former variant is clearly disclosed in an individualised manner. Even though a skilled person may perceive members of general groups or parts of ranges in the state of the art, these members or parts could represent new matter if they are not a random sample but amount to a "selection".

8. The present application is not only confined to the method of conducting the reaction in the presence of the base but the absolute necessity of doing this is emphasised three times in the text (page 2, lines 7 and 21, page 3, line 23).

The reproduction of the relevant passage from the priority document is now augmented by the phrase "during polymerisation" thereby excluding the possibility of reacting with the base after polymerisation. The restriction from the original broader scope to the method now claimed had serious technical reasons, as is explained in the specification (cf. page 3, lines 22-29, original text). This shows that the en route introduction of the ionic group is really responsible for the intended reduction of crystallisation temperature after all, in contrast to the undesirable neutralisation after polymerisation.

9. In view of the above, it cannot any more be assumed that the quantitative condition, i.e. the resulting effect in temperature reduction in the present claim was also implied by the priority document. This would have been the case if the instructions in the priority document had inevitably led to such temperature reduction in any case, assuming that the skilled person would have done the necessary quantitative adjustments about the use of alkali metal bases to obtain significant results with regard to such effect. Since this is not so, it is impossible to regard the temperature limit now as a mere consequence of any embodiment in the priority document. The discovery that not all variants of the priority document work, or work adequately to the newly set degree means that the temperature reducing feature is not disclosed in the priority document.

10. The matter is, therefore, not merely that of the disclosure of an alternative by a more generic statement implying only two possibilities, nor is it only a purposive selection requesting a different effect, but it is also the disclosure of a necessary functional limitation even after the non-functioning alternative was abandoned. Within the scope of the present technique, i.e. the introduction of the base during polymerisation, the results are not inevitable but require special attention to the sufficiency of the metal compound to achieve the right concentration of ionic groups in order to have at least the set minimum reduction of crystallisation temperature. The limitation of Claim 7 to this characteristic is therefore operative and essential and no more a consequence of other conditions. The necessity of this limitation and the choice of reacting in the presence of the base, instead of using this afterwards, is a combination of requirements not clearly and unequivocally implied by the priority document. The latter therefore gives no full support to Claim 7 and the objection on ground of novelty must thus be maintained and confirmed.

Thus, a generic disclosure in a priority document, interpreted as covering two alternatives, does not form a basis for the priority of a later specific disclosure of one of the two alternatives characterised by a quantitative result, unless this result would have been obtained inevitably from either of the two alternatives or is also expressly disclosed.

11. For the above reasons, the main request must be rejected. The auxiliary request suggesting the deletion of the claim and a reinstatement of the original Claim 1 for further prosecution cannot be entertained either. It is the view of the Board that if on the true interpretation of a statement made by an Applicant or Patentee, it may be

considered that a particular subject-matter has been expressly abandoned together with the complete deletion of the appropriate Claim 5 and all support therefor in the specification, the same cannot be reinstated again in the application. In the present case such action on the part of the Appellant was in response to a citation of relevant art and was accepted by the Examining Division. It must, therefore, be considered as a proper settlement of a relevant question in prosecution and the public should be entitled to draw reliable conclusions from such irreversible action.

Order

For these reasons, it is decided that:

The appeal is rejected.

The Registrar:

The Chairman:

F.Klein

P.Lançon