

Publication in the Official Journal Yes / No

File Number: T 305/89 - 3.3.3

Application No.: 83 304 800.2

Publication No.: 0 104 751

Title of invention: Photosensitive elastomeric polymer composition for flexographic printing plates

Classification: G03C 1/68

D E C I S I O N
of 11 July 1991

Applicant: W.R. Grace + Co. - Conn.

Headword: Photosensitive elastomer/GRACE

EPC Art. 84

Keyword: "Clarity of claims - Compositions adding to more than 100%"

Headnote



Case Number : T 305/89 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 11 July 1991

Appellant : W.R. Grace + Co. - Conn.
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Decision under appeal : Decision of Examining Division 034 of the
European Patent Office dated 19 December 1988
refusing European patent application
No. 83 304 800.2 pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : F. Antony
Members : R. Lunzer
R. Schulte

Summary of Facts and Submissions

I. European Patent application No. 83 304 800.2, publication No. 104 751, was applied for on 19 August 1983, claiming the priority of US Application No. 413 581 dated 31 August 1982, and was published on 4 April 1984. Claim 1 of the application as originally filed was in the following terms:

"A homogeneous elastomeric photosensitive composition suitable for printing characterised in that the composition comprises

(A) 40 to 90% by weight of the total composition of a high molecular weight butadiene/acrylonitrile carboxylated copolymer having a number average molecular weight of 30,000 to 125,000, an acrylonitrile content of 10 to 50%, and a carboxyl content of 1% to 15% by weight.

(B) 5 to 60% by weight of total composition of a high molecular weight butadiene/acrylonitrile non-carboxylated copolymer having a number average molecular weight of 50,000 to 100,000, an acrylonitrile content of 10 to 30% so that the combination of the carboxylated and non carboxylated high molecular weight copolymers give a composition with a carboxyl content of 3 to 10%.

(C) 2 to 40% by weight of the total composition of an addition photopolymerizable ethylenically unsaturated monomer and

(D) 0.1 to 10% by weight of the total composition of a photoinitiator activatable by actinic radiation."

II. In response to various formal objections, in particular an objection by the Examining Division to the effect that the

claims as originally formulated were not clear, because certain defined ranges were arithmetically incompatible with each other, the Appellant repeatedly put forward amendments. In particular, in an attempt to overcome the objection that the whole composition could add up to more than 100%, the Appellant redefined the proportions of (A) and (B) in terms of the "total copolymer composition".

III. By a decision dated 19 December 1988, the Examining Division held that the claimed subject matter was novel and inventive, but rejected the application on the ground that the amended Claims 1 to 8, filed on 15 March 1988, still offended against Article 84 EPC, in that they lacked clarity, and also offended against Article 123(2) EPC, in that matter had been introduced into the claims going beyond the content of the application as originally filed.

IV. An appeal against this decision was lodged on 21 February 1989, the appeal fee having been paid on 17 February, and the Grounds of Appeal were filed on 10 April 1989. Together with its Statement of Grounds of Appeal, the Appellant filed a main request and three auxiliary requests.

V. Following communications from the Board dated 17 November 1989, 29 November 1990, and 18 February 1991, the Appellant filed further amendments, the final version of Claim 1 received on 30 March 1991 being in the following form (the mis-spelling of "10 to 30% be weight" being corrected to "by"):

"A homogeneous elastomeric photosensitive composition suitable for printing characterised in that the composition comprises a blend of two copolymers;

a. about 40 to 90% by weight of the total composition of a high molecular weight butadiene/acrylonitrile carboxylated copolymer having a number average molecular weight of 30,000 to 125,000, an acrylonitrile content of 10 to 50% by weight, and a carboxyl content of 1% to 15% by weight;

b. 5 to 45% by weight of total composition of a high molecular weight butadiene/acrylonitrile copolymer free of carboxyl groups and having a number average molecular weight of 50,000 to 100,000, an acrylonitrile content of 10 to 30% by weight so that the combination of the carboxylated and non-carboxylated high molecular weight copolymers give a composition with a carboxyl content of up to 10% by weight;

c. 2 to 40% by weight of the total composition of an addition photopolymerisable ethylenically unsaturated cross-linking agent; and

d. 0.1 to 10% by weight of the total composition of a photoinitiator activatable by actinic radiation and thermally inactive below 185°C, in which (a) to (d) must always add up to 100%."

VI. The Appellant requested that the application should be granted with the main Claim in the form indicated above, followed by claims 2 and 3 filed on 30 March 1991, claims 4 to 8 filed on 11 January 1990, as well as the amended description consisting of page 2 filed on 10 December 1990, page 3 filed on 30 March 1991, and pages 4 to 23 as set forth in the decision under appeal, together with the original drawings.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. In the view of the Board, the main objection by the Examining Division under Article 123(2) EPC is overcome by reverting to the original language, in defining (A) and (B) in terms of their proportions to the whole composition, substantially as they were defined in the application as originally filed.
3. In order to overcome the objection under Article 84 EPC, concerning the composition being defined in a way which could exceed 100%, the Appellant has now made the upper limit of (B) 45%, in place of 60%. Thus, whereas in the past there was a problem if (B) were to be at its maximum of 60%, because the minima of the other three substances came to a total of 42.1%, with (B) having a maximum value of 45%, this problem no longer arises.
4. This proposed amendment is permissible having regard to Article 123(2) EPC, because an upper limit for (B) of 45% is disclosed as preferred at page 5 line 34, and also in Claim 3, of the application as originally filed. The qualification of the lower limit of (A) by the word "about" is to be found in the description at page 2 line 28 of the specification as originally filed, and this amendment is therefore unobjectionable under Article 123(2) EPC, while at the same time it overcomes the underlying objection of lack of clarity under Article 84 EPC.
5. Regarding the further objection under Article 84 EPC, concerning the incompatible ranges for the carboxyl

content, in the view of the Board the proposed amendment to overcome this objection, by defining the carboxyl content of the compositions as, "up to 10%", with no specified minimum, is permissible for the purposes of Article 123(2), and avoids the objectionable incompatibility.

6. The skilled reader of the application as filed would have realized that the range of 1 to 15% of carboxyl groups in (A), the only source of such groups, is inherently incompatible with the range of 3 to 10% in the composition as a whole. If (A) were to have a carboxyl content anywhere within the permissible range of 1 to 3%, less than 3% of carboxyl groups would be present in the composition. In these circumstances, removal of the lower limit of carboxyl groups from the range specified in (B) is a permissible amendment in accordance with the established practice of the Boards of Appeal, and of the EPO as a whole.

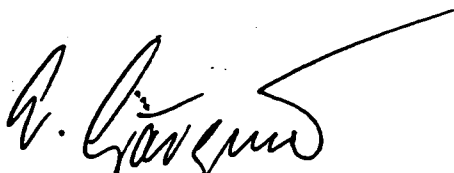
7. Accordingly, the Board is of the view that the amendments now filed have overcome the objections which led to the rejection of the application. As the Examining Division found that there were no objections on the ground of lack of novelty or lack of inventive step, and as the amendments permitted by the Board do not impinge on the essential subject matter of Claim, the Board is satisfied that the application is now ready for grant, subject to any necessary adaptation of the description.

Order

For these reasons, it is decided that:


1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division with the order to grant a patent on the basis of the documents referred to in VI. above, subject to any necessary further adaptations of the description.

The Registrar:



E. Görgmaier

The Chairman:



F. Antony