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D E C I S I O N
of 10 December 2004

Case Number: T 1255/01 - 3.3.3

Application Number: 94305223.3

Publication Number: 0636655

IPC: C08L 67/02

Language of the proceedings: EN

Title of invention:

Halogen-free flame retardant compositions

Applicant:

GENERAL ELECTRIC COMPANY

Opponent:

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Headword:

-

Relevant legal provisions:

EPC Art. 84

Keyword:

"Claims - clarity (no)"

Decisions cited:

T 0002/80

Catchword:

-



Case Number: T 1255/01 - 3.3.3

D E C I S I O N
of the Technical Board of Appeal 3.3.3
of 10 December 2004

Appellant:

GENERAL ELECTRIC COMPANY
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 16 July 2001
refusing European application No. 94305223.3
pursuant to Article 97(1) EPC.

Composition of the Board:

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

Summary of Facts and Submissions

I. European patent application No. 94 305 223.3 in the name of GENERAL ELECTRIC COMPANY, filed on 15 July 1994, claiming a US priority of 30 July 1993 (US 100658) and published under No. 0 636 655 on 1 February 1995, was refused by a decision of the examining division issued in writing on 16 July 2001.

II. The decision was based on a set of Claims 1 to 7 where Claim 1 read as follows:

"1. A flame retardant thermoplastic molding composition comprising in combination a high molecular weight linear polyester, a flame retardant amount of a copolymer of polyetherimide and an organopolysiloxane and an additive selected from the group consisting essentially of polyetherimides, polyphenylene sulfides and a filler; wherein the polyester has an intrinsic viscosity of at least about 0.4 deciliters per gram and is selected from the group consisting of polybutylene terephthalate, polyethylene terephthalate, polypropylene terephthalate, polycyclohexanedimethanol terephthalate, blends thereof and copolymers thereof."

Claims 2 to 7 were dependent claims directed to elaborations of the subject-matter of Claim 1.

III. According to the decision, the application was refused since the subject-matter of Claims 1 to 4 and 6 was not inventive over the disclosure of document D2 in combination with document D3:

D2: JP-A-63077965 (abstract) and

D3: US-A-4 816 527.

IV. On 13 September 2001, a notice of appeal against the above decision was filed by the applicant (hereinafter referred to as the appellant) with simultaneous payment of the prescribed fee.

The statement of grounds of appeal, filed on 21 November 2001, was accompanied by a set of amended Claims 1 to 8 the subject-matter of which the appellant considered to be inventive over the teaching of D2 and D3. Claims 1, 4, 5, 7 and 8 read as follows:

"1. A flame retardant thermoplastic molding composition comprising in combination 85 to 40 parts by weight of a high molecular weight linear polyester, 15 to 60 parts by weight of a copolymer of polyetherimide and an organopolysiloxane and an additive selected from the group consisting of polyetherimides and polyphenylene sulfides; wherein the polyester has an intrinsic viscosity of at least about 0.4 deciliters per gram as measured in a 60:40 phenol tetrachloroethane mixture at 30°C and is selected from the group consisting of polybutylene terephthalate, polyethylene terephthalate, polypropylene terephthalate, polycyclohexanedimethanol terephthalate, blends thereof and copolymers thereof.

4. The composition of claim 1 further comprising a filler.

5. The composition of claim 4 wherein the composition has 10-40 parts by weight of a filler.

7. The composition of claim 1 wherein the molding composition consists essentially of (1) 80-40 parts by weight of a high molecular weight linear polyester having an intrinsic viscosity of at least about 0.4 deciliters per gram, (2) 20-60 parts by weight of a copolymer of polyetherimide and organopolysiloxane, and (3) 1-25 parts by weight of a polyphenylene sulfide, parts by weight being based on the total weight of (1), (2) and (3).

8. The composition of claim 1 consisting essentially of (a) 85 to 40 parts by weight of the polyester, (b) 20 to 35 parts by weight of the copolymer of polyetherimide and organopolysiloxane, (c) 1 to 25 parts by weight of polyphenylene sulfide, (d) 5 to 15 parts by weight of polyetherimide, and (e) 10 to 40 parts by weight of glass fiber reinforcing filler, the parts by weight being based on the total weight of (a), (b), (c), (d), and (e)."

Claims 2, 3, and 6 were further dependent claims.

V. In a communication issued on 23 September 2004 accompanying a summons to oral proceedings, the salient issues were identified by the board as being firstly, whether the amended claims met the requirements of Articles 84 and 123(2) EPC and secondly, whether the subject-matter of amended Claim 1 was inventive with respect to the disclosure of D2 and D3.

VI. In a fax filed on 9 December 2004, the appellant informed the board that it would not be represented at the oral proceedings. Furthermore, it was requested

that a decision be issued on the basis of the arguments previously submitted in writing.

- VII. On 10 December 2004, oral proceedings were held before the board, at which the appellant, as announced, was not represented. In accordance with Rule 71(2) EPC, the oral proceedings were continued in the absence of the appellant based on the request on file.
- VIII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of Claims 1 to 8 filed on 21 November 2001.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 EPC and Rule 64 EPC and is therefore admissible.
2. *Amendments/Clarity*
 - 2.1 Amended Claim 1 refers to a composition comprising a high molecular weight linear polyester (PE), a polyetherimide siloxane copolymer (PEI/S) and an additive selected from the group consisting of polyetherimides (PEI) and polyphenylene sulfides (PPS), whereby the amount of PE is 85 to 40 parts by weight and the amount of PEI/S is 15 to 60 parts by weight. However, the basis for the amount of PE and PEI/S is not clear (Article 84 EPC).

It is conspicuous to the board that the application as originally filed (page 3, lines 15 to 19; page 18, lines 14 to 19; Claim 2 as originally filed) associates

an amount of 85 to 40 parts by weight of PE and an amount of 15 to 60 parts by weight of PEI/S with a composition comprising **two** components, namely PE and PEI/S, whereas the composition as claimed in amended Claim 1 comprises **three** components, namely PE, PEI/S and the additive. It remains unclear in amended Claim 1 whether the introduced amounts are based on PE and PEI/S only or whether the amounts are based on all three components. Consequently, Claim 1 does not meet the requirements of Article 84 EPC.

2.2 The composition of Claim 4 further comprises a filler. Since, however, the term "filler" is not clearly defined in the application as originally filed (nor is the board aware of such a definition generally accepted in the relevant literature), it could be argued that the two additives PEI and PPS are also fillers making a distinction between these components impossible. Thus, new Claim 4 lacks clarity (Article 84 EPC).

2.3 Claim 5 being dependent upon Claim 4 further specifies the amount of filler. Firstly, the objection against the term "filler" is also valid for Claim 5 (section 2.2, above), and secondly, the basis for the amount of filler is not indicated. Thus, Claim 5 does not meet the requirements of Article 84 EPC.

2.4 In Claims 7 and 8, the amounts for the individual components are based on the total weight of the components, ie on the total weight of (1), (2) and (3) in Claim 7 and on the total weight of (a), (b), (c), (d) and (e) in Claim 8. This requirement implies that the amounts of the individual components add up to 100. For Claim 7, however, it is not possible to formulate a

composition containing either 80 parts by weight of PE (ie the upper limit for PE) or 60 parts by weight of PEI/S (ie the upper limit for PEI/S). Thus, Claim 7 does not satisfy the requirement of Article 84 EPC (eg T 2/80, OJ EPO 1981, 431, headnote).

The same objection applies to a composition according to Claim 8 containing 85 parts by weight of PE (ie the upper limit of PE).

3. As Claims 1, 4, 5, 7 and 8 of the only request on file do not meet the requirements of Article 84 EPC, any further consideration as to whether the amended claims meet the other requirements of the EPC is superfluous.
4. Consequently, the appellant's request is refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

E. Görgmaier

R. Young