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**D E C I S I O N**  
**of 17 January 2002**

**Case Number:** T 0939/98 - 3.3.3

**Application Number:** 95910871.3

**Publication Number:** 0742800

**IPC:** C08F 265/02

**Language of the proceedings:** EN

**Title of invention:**

Two-phase acidic aqueous compositions for diffusion transfer products

**Patentee:**

POLAROID CORPORATION

**Opponent:**

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**Headword:**

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**Relevant legal provisions:**

EPC Art. 84

**Keyword:**

"Clarity (yes)"

**Decisions cited:**

T 0860/93, T 0860/95

**Catchword:**

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Boards of Appeal

Chambres de recours

**Case Number:** T 0939/98 - 3.3.3

**D E C I S I O N**  
**of the Technical Board of Appeal 3.3.3**  
**of 17 January 2002**

**Appellant:** POLAROID CORPORATION  
549 Technology Square  
Cambridge  
Massachusetts 02139-3589 (US)

**Representative:** Reitzner, Bruno, Dr.  
Splanemann Reitzner  
Baronetzky Westendorp  
Patentanwälte  
Rumfordstrasse 7  
D-80469 München (DE)

**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 29 May 1998  
refusing European patent application  
No. 95 910 871.3 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** R. Young  
**Members:** W. Sieber  
J. De Preter

## Summary of Facts and Submissions

I. European patent application No. 95 910 871.3, based on International application PCT/US95/00852, filed on 20 January 1995, claiming a US priority of 31 January 1994 (08/189105) and published under number WO 95/20610, was refused by a decision of the Examining Division issued on 29 May 1998. The decision was based on a set of 14 claims, Claim 1 of which was filed with letter of 20 February 1998 (received 21 February 1998) and read as follows:

"1. A two-phase acidic aqueous composition comprising a continuous aqueous phase and a discontinuous high-acid particle phase;

the aqueous phase comprising a water soluble polymer having recurring units of at least an organic acid monomer, the aqueous phase organic acid monomer having at least one ethylenically unsaturated carbon-carbon bond, the aqueous phase organic acid monomer being capable of promoting the solubility of the aqueous phase polymer in water, the aqueous phase organic acid monomer units being in a concentration effecting solubility of the aqueous phase polymer in water;

the high-acid particle phase comprising a water insoluble polymer having recurring units of at least an organic acid monomer and an organic ester monomer, the organic acid monomer having at least one ethylenically unsaturated carbon-carbon bond and being capable of forming salts with alkali metals or with organic bases, the particle phase organic ester monomer having at least one ethylenically unsaturated carbon-carbon bond and capable of promoting the insolubility of the particle phase, the particle phase organic acid monomer

units and the particle phase organic ester monomer units being in a ratio effecting insolubility of the particle phase polymer in the aqueous phase; and

the particle phase organic acid monomer capable of interacting with the aqueous phase polymer at an interface between the particle phase and the aqueous phase such that the particle phase polymer is brought into intimate association with the continuous aqueous phase, whereby the particle phase is stably dispersed in the aqueous phase."

The remaining Claims 2 to 14 are not of importance for this decision and consequently they will not be considered in further detail.

II. According to the decision, the application did not meet the requirements of Article 84 EPC (clarity) in relation to the following terms in Claim 1:

- (1) "water soluble" polymer
- (2) "capable of promoting the solubility of the aqueous phase polymer"
- (3) "water insoluble" polymer
- (4) "capable of promoting the insolubility of the particle phase"
- (5) "intimate association"
- (6) "stably dispersed".

Specifically, the terms (1), (3), (5) and (6) lacked a definition. Furthermore, it was not clear what was meant by (2) and (4), since the relevant polymer was in either case already soluble or insoluble.

III. On 3 August 1998, a Notice of Appeal against the above decision was filed by the Appellant (Applicant) with simultaneous payment of the prescribed fee.

In the Statement of Grounds of Appeal, filed on 12 August 1998, the Appellant argued in essence as follows:

- (i) The decision under appeal merely stated that Claim 1 was unclear without giving any consideration to the knowledge of the average skilled person in the art. In particular, with regard to the terms "water soluble" and "water insoluble" a skilled person would know, especially after having read the description, what was meant by these terms. Reference was made to T 860/93 (OJ EPO 1995, 047).
  
- (ii) As to the terms "capable of promoting the solubility of the aqueous phase polymer" and "capable of promoting the insolubility of the particle phase", these reflected the criteria for achieving the desired solubility or insolubility of the polymers of the two-phase composition: appropriate selection of the monomers and incorporation of those monomers into the polymers at appropriate concentration.
  
- (iii) The terms "intimate association" and "stably dispersed" should be construed as clarification of the recited interaction at an interface between the particle phase and the aqueous phase.
  
- (iv) The reasons given in the decision were at least incomplete because the arguments presented in response to the first communication of the Examining Division had not been fully considered. This alone justified the rectification of the decision and the refund of the appeal fee.

IV. The Appellant's requests were:

- to set aside the decision under appeal and to refer the case back to the Examining Division;
- to refund the appeal fee.

### **Reasons for the Decision**

1. The appeal is admissible.

2. *Amendments*

Claim 1 differs from Claim 1 as originally filed by the introduction of the word "units" immediately after the references to

(i) "the aqueous acid phase organic acid monomer" at line 8 of the claim;

(ii) "the particle phase organic acid monomer" at line 16 of the claim; and

(iii) "the particle phase organic ester monomer" at line 17 of the claim.

These amendments are allowable, and indeed desirable, in view of the references to "units" in the corresponding antecedent definitions in the claim.

Hence Claim 1 meets the requirements of Article 123(2) EPC.

3. *Clarity (Article 84 EPC)*

The present appeal is limited to the issue of the

clarity requirements of Article 84 EPC.

### 3.1 "water soluble"

The term "water soluble" (1) is a relative term indicating merely the possession of a relative quality without quantifying said quality. The decision under appeal calls for a numerical range further to define the relative term. However, if a numerical range were provided, the result would no longer be a relative term. In this connection, the contrast between such terms is emphasised in T 860/93, OJ EPO 1995, 047, which is highly relevant in this case since it specifically addresses the clarity of the term "water soluble". According to this decision (Reasons, point 4.5), the use of a relative term may be accepted where the skilled person is able to understand the meaning of this term in a given context (see also T 860/95 of 27 October 1999, Reasons point 4; not published in the OJ EPO). Yet the only reason given in the decision under appeal for objecting to the term "water soluble" was that it was not defined in terms of the minimum amount of the said water soluble polymer that could be dissolved in water at a particular temperature and pressure (Reasons for the decision point 1.2).

- 3.1.1 The argument of the Appellant (then the Applicant) that the term "water soluble" is sufficiently clear to a skilled person working in the field of photographic diffusion transfer products is irrelevant, because Claim 1 is not limited to such a context, but extends to two-phase systems in general, ie a two-phase composition comprising a continuous aqueous phase and a discontinuous particle phase.

3.1.2 Nevertheless, also in the much broader context, in which the claimed subject-matter is to be understood, it is self-evident to which part of such a two-phase system the water soluble component belongs.

3.1.3 Consequently, and in spite of the irrelevance of the Applicant's argument regarding the field of application, the general principles laid down in the case law referred to (section 3.1, above) still apply.

3.1.4 Thus, the demand, in the decision under appeal, for a further definition goes without justification beyond what has been held in the relevant case law to be necessary, and the Board cannot support the finding of the decision under appeal in the above respect.

3.2 "water insoluble"

Analogous considerations apply to the converse term "water insoluble" (2). Clearly if there is no need to further define the term "water soluble" in the context of a two phase system, it follows that there can equally be no need to define the term "water insoluble".

3.3 "intimate association" and "stably dispersed"

The considerations of point 3.1 above apply also to the relative terms (5) and (6). These terms are to be understood as a clarification of the recited interaction between the particle phase and the aqueous phase. Explanation of these terms can be found in the description at page 10, line 17 to page 11, line 3 from which a skilled person can understand that the term "intimate association" suggests that the interaction



involves attractive rather than repulsive forces, and the term "stably dispersed" suggests that these forces are not fleeting.

In the reply of 20 February 1998, the Appellant (then the Applicant) stated that "The degree of "intimate association" and "stable dispersion" will depend, for example, on the size of the polymer particles. Again, this and like factors can be easily determined and optimized by a person skilled in the art. A dispersion is "stable" if no phase separation occurs during normal processing times. Since a person skilled in the art has some freedom regarding the time within which the dispersion is to be processed, it should be understandable that a precise definition would not be justified."

This statement, in the Board's view, reflects only common general knowledge and cannot therefore justify a further definition of the terms (5) and (6) as set out in the decision under appeal (Reasons for the decision, points 5.2 and 6.2). Consequently, the Board cannot support the finding of the decision under appeal that these terms are ambiguous without further definition.

3.4 "capable of promoting the solubility/insolubility of a polymer"

3.4.1 As regards the terms "capable of promoting the solubility of the aqueous phase polymer" (2) and "capable of promoting the insolubility of the particle phase" (4), these terms must not be construed in isolation but have to be interpreted in the context of Claim 1.

3.4.2 Claim 1 states that the water soluble polymer has recurring units of at least an organic acid monomer, and the water insoluble polymer has recurring units of at least an organic acid monomer and an organic ester monomer. Thus, it is clear to a skilled person that the acid and ester groups are introduced into the polymer by polymerizing the monomers containing the respective functional groups.

Claim 1 further states "the aqueous phase organic acid **monomer** (emphasis added) being capable of promoting the solubility of the aqueous phase polymer in water". It is common general knowledge that a water soluble polymer must contain sufficient hydrophilic groups, in the present case acid groups, in order to ensure water solubility of the polymer. The degree of solubility is dependent on the number, position and frequency of these moieties.

Likewise, Claim 1 states that "the organic ester **monomer** (emphasis added) is "capable of promoting the insolubility of the particle phase". It is clear from the immediately following concentration-related recitation (acid monomer/ester monomer ratio) in Claim 1 or from the description, eg page 11, 3<sup>rd</sup> paragraph, that the insolubility of the particle phase polymer is promoted by increasing the number of ester monomer units in the polymer.

Thus, the solubility/insolubility promotion capabilities cited in Claim 1 relate to the selection criteria of the **monomers** which will influence the solubility and insolubility, respectively, of the resulting **polymer**.

3.4.3 The argument in the decision under appeal, that the solubility of an already soluble polymer or the insolubility of an already insoluble polymer could not be promoted is irrelevant, since it is the effect of the monomers which is being referred to, and not of the ready-formed polymer.

3.4.4 Since no other reason was given in the decision under appeal as to why the above terms should be regarded as unclear, and since, furthermore, the associated terms "water soluble" and "water insoluble" have themselves been found clear (sections 3.1 and 3.2 above), the Board is unable to support the findings in the decision under appeal in relation to the above-mentioned terms (2) and (4).

4. Summing up, the Board is satisfied that the terms objected to in Claim 1 meet the clarity requirements of Article 84 EPC.

5. It follows from the above that the appeal must be allowed. Since, however, it is evident from the communication of the Examining Division dated 3 December 1997, ie the last communication issued prior to the decision to refuse the application, that the issues of novelty, inventive step and other aspects of the application, in particular Articles 82, 83 and 123(2) EPC, have not been considered (paragraphs 3.1 to 3.3), the Board has decided to make use of its powers under Article 111(1) EPC to refer the case back to the Examining Division for further prosecution.

6. *Reimbursement of appeal fees*

According to Rule 67 EPC the reimbursement of appeal

fees shall be ordered "...where the Board of Appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation". The fact that the decision under appeal dealt only rather briefly with the relevant arguments presented in response to the communication of the Examining Division may indicate a failure to appreciate the technical significance of some of these arguments, but cannot be regarded as an indication that the arguments were not considered at all. On the contrary, the decision under appeal refers repeatedly in its reasoning to the relevant response of 20 February 1998 and covers the main aspects of its arguments. Hence, the Board is unable to discern a substantial procedural violation. Thus, the request for reimbursement of the appeal fees cannot be met.

**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, on the basis of the following set of claims:

**Claim 1**

as received on 21 February 1998 with letter of  
20 February 1998,

**Claims 2 to 14**

as received on 10 June 1996 with letter of 5 June 1996.

3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:

E. Görgmaier

R. Young