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**D E C I S I O N**  
**of 5 August 1997**

**Case Number:** T 0735/93 - 3.3.1  
**Application Number:** 88200526.7  
**Publication Number:** 0287144  
**IPC:** C09D 133/08

**Language of the proceedings:** EN

**Title of invention:**

An aqueous coating composition based on a dispersion of an addition polymer, especially suited to be used in an aqueous base coat

**Patentee:**

Akzo Nobel N.V.

**Opponent:**

- (1) Röhm GmbH  
(2) Herberts GmbH

**Headword:**

Base coat/AKZO

**Relevant legal provisions:**

EPC Art. 54, 56

**Keyword:**

"Novelty (yes) - selection of particular comonomers in particular amounts"  
"Inventive step (yes) - non-obvious solution of the technical problem underlying the patent in suit"

**Decisions cited:**

T 0039/82

**Catchword:**

-



Case Number: T 0735/93 - 3.3.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.1  
of 5 August 1997

**Appellant:**  
(Proprietor of the patent) Akzo Nobel N.V.  
Velperweg 76  
6824 BM Arnhem (NL)

**Representative:** -

**Respondent (1):**  
(Opponent (1)) Röhm GmbH  
Kirschenallee  
D-64293 Darmstadt (DE)

**Respondent (2):**  
(Opponent (2)) Herberts GmbH  
Christbusch 25  
D-42285 Wuppertal (DE)

**Representative:** Türk, Gille, Hrabal, Leifert  
Brucknerstrasse 20  
40593 Düsseldorf (DE)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 18 June 1993  
revoking European patent No. 0 287 144 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** A. J. Nuss  
**Members:** J. M. Jonk  
R. E. Teschemacher

## Summary of Facts and Submissions

- I. The Appellant (proprietor of the patent) lodged an appeal against the decision of the Opposition Division by which European patent No. 0 287 144 was revoked in response to an opposition, based on Article 100(a) EPC, which had been filed against the patent as a whole.

Claim 1 of a set of claims for the contracting states AT, BE, CH, DE, FR, GB, GR, IT, LI, LU, NL and SE read as follows:

"An aqueous coating composition based on a dispersion of an addition polymer, characterized in that the addition polymer is a polymer prepared in 2 or more steps by emulsion polymerization, and obtained by copolymerization in a first step of 60-95 parts by weight (calculated on 100 parts per weight of the addition polymer) of a monomer mixture A consisting of 65-100 mole% of a mixture of 60-100 mole% of a (cyclo)alkyl (meth)acrylate of which the (cyclo)alkyl group contains 4-12 carbon atoms, and 0-40 mole% of a di(cyclo)alkyl maleate and/or a di(cyclo)alkyl fumarate of which the (cyclo)alkyl groups contain 4-12 carbon atoms, and 0-35 mole% of a different copolymerizable, monoethylenically unsaturated monomer, and by copolymerization in a subsequent step of 5-40 parts by weight (calculated on 100 parts by weight of the addition polymer) of a monomer mixture B of 10-60 mole% of (meth)acrylic acid and 40-90 mole% of a different copolymerizable, monoethylenically unsaturated monomer, and with the carboxylic acid groups derived from the (meth)acrylic acid being at least partially ionized."

Claim 1 of a set of claims for the contracting state ES related to a process for coating a substrate by applying an aqueous coating composition according to Claim 1 for the other contracting states.

II. The opposition was supported by several documents including:

(1) EP-A-0 151 360,

(4) DE-A-3 410 234,

(6) EP-A-0 038 127, and

(7) Kunststoff-Handbuch, Band IX, 1975, pages 332 to 339.

III. The Opposition Division held that the subject-matter of the patent in suit lacked novelty in view of document (4). In addition they considered that, if the novelty objection were met, its subject-matter lacked inventive step in the light of the disclosure of said document (4) and common general knowledge as represented by document (7). According to this document (7) an increase of the amount of butyl acrylate in a mixture of butyl acrylate and methyl methacrylate lowered the glass transition temperature of the resulting copolymer rendering it softer and more suitable for the purpose of the patent in suit.

IV. Oral proceedings were held on 5 August 1997, at which the Respondents, as announced by them, were not represented.

V. The Appellant defended the patentability of the subject-matter of the patent in suit on the basis of two sets of new claims filed on 7 July 1997, i.e.

Claims 1 to 9 for the contracting states AT, BE, CH, DE, GB, GR, IT, LI, LU, NL and SE, and Claims 1 to 9 for the contracting state ES. During oral proceedings, he corrected the lack of FR in the list of contracting states by filing a replacement sheet.

Claim 1 for the contracting states AT to SE read as follows:

"An **aqueous base coat based on an** aqueous coating composition based on a dispersion of an addition polymer, characterized in that the addition polymer is a polymer prepared in 2 or more steps by emulsion polymerization, and obtained by copolymerization in a first step of 60-95 parts by weight (calculated on 100 parts per weight of the addition polymer) of a monomer mixture **A not containing any groups which react with each other and** consisting of 65-100 mole% of a mixture of 60-100 mole% of a (cyclo)alkyl (meth)acrylate of which the (cyclo)alkyl group contains 4-12 carbon atoms, and 0-40 mole% of a di(cyclo)alkyl maleate and/or a di(cyclo)alkyl fumarate of which the (cyclo)alkyl groups contain 4-12 carbon atoms, and 0-35 mole% of a different copolymerizable, monoethylenically unsaturated monomer, and by copolymerization in a subsequent step of 5-40 parts by weight (calculated on 100 parts by weight of the addition polymer) of a monomer mixture **B** of 10-60 mole% of (meth)acrylic acid and 40-90 mole% of a different copolymerizable, monoethylenically unsaturated monomer, and with the carboxylic acid groups derived from the (meth)acrylic acid being at least partially ionized." (bolds added in order to indicate the differences with respect to Claim 1 as granted)

Furthermore, Claim 1 of the new set of claims for the contracting state ES related to a process of coating a substrate by applying an aqueous coating composition according to the new Claim 1 for the other contracting states.

The Appellant argued that the claimed subject-matter was novel in the light of documents (1), (4) and (6), since

(a) document (1) did not disclose dispersions of particles having **cores** obtained by emulsion copolymerisation of **at least 65 mole%** of monomers containing (cyclo)alkyl groups having **4-12** carbon atoms,

(b) document (4) did not disclose dispersions of polymer particles having **cores** constituting **60** to **95** wt.% of the particles and consisting of **non-crosslinked** copolymers obtained by emulsion copolymerisation of **at least 65 mole%** of monomers containing (cyclo)alkyl groups having **4-12** carbon atoms, and

(c) document (6) did not disclose polymer particles having **cores** consisting of **non-crosslinked** copolymers obtained by emulsion copolymerisation of **at least 65 mole%** of monomers containing (cyclo)alkyl groups having **4-12** carbon atoms.

He also disputed that the claimed subject-matter would be obvious to the skilled person in the light of the cited documents. In this context, he argued that the Comparative Examples 1 to 3 of the patent in suit showed that the use of only about 50 mole% of one or more C<sub>4-12</sub> (cyclo)alkyl (meth)acrylates in monomer mixture A provided a strong decrease of the flop values of the base coats when the clear coat was applied. Moreover he argued that the cited documents (1), (4) and (6) did not provide any pointer to the skilled

person that the improvement achieved in accordance with the patent in suit could be obtained by applying a composition based on a dispersion as defined in present Claims 1, since none of the documents suggested the forming of copolymer particles having cores and shells, whereby the cores were obtained by emulsion copolymerisation of at least 65 mole% of (meth)acrylates containing (cyclo)alkyl groups having 4-12 carbon atoms. In addition, he argued that document (1) concerned the provision of aqueous dispersions showing improved storage stability which are used for preparing paints having good tension properties, so that this document did not have any relationship with metallic base coat/clear coat systems and the problems related thereto. Furthermore, he argued that a skilled person would not combine the teaching of document (7) with that of documents (4) and (6), since the last two documents related to dispersions of crosslinked polymer particles.

VI. The Respondents argued in their written submissions that the subject-matter of the patent in suit lacked novelty in view of documents (1), (4) and (6). In this context, Respondent (2) contended that the teaching of document (1) would enable a skilled person to modify Example 1 to a novelty destroying example by replacing the monomer mixture for preparing the cores of the polymer particles by a mixture of methyl acrylate and octyl methacrylate.

The Respondents also argued that the claimed subject-matter of the patent in suit did not involve an inventive step in the light of documents (1), (4) and/or (6) in combination with common general knowledge as represented by document (7). In this context, Respondent (1) argued in particular that the composition according to Example 4 of document (6)

differed from compositions in accordance with the patent in suit only in that the butyl acrylate content in the cores of the polymer particles was 44%. However, in his opinion it would have been obvious to a skilled person in view of document (7) that copolymer particles having a  $T_g$  below room temperature could be obtained by using a higher butyl acrylate content within the range of 65 to 100 mole% as claimed.

With respect to the feature "not containing any groups which react with each other" in present Claim 1, Respondent (2) also observed that according to Example 1 of the patent in suit monomer mixture A comprised 2-hydroxypropyl methacrylate, i.e. a monomer providing crosslinking.

- VII. The Appellant requested the decision under appeal be set aside and that the patent be maintained on the basis of the two sets of claims (one for ES, and one for the other designated contracting states) as submitted on 7 July 1997.

The Respondents requested in their written submissions that the appeal be dismissed.

- VIII. At the conclusion of the oral proceedings the Board's decision was pronounced.



## Reasons for the Decision

1. The appeal is admissible.
2. Present Claim 1 for the contracting states AT to SE is based on Claims 1 and 7, and page 3, lines 8 to 10, of the description of the patent in suit, as well as Claims 1 and 7, and page 3, first paragraph, last sentence, of the originally filed patent application.

The present dependent Claims 2 to 9 for these states are based on Claims 2 to 6 and 8 to 10 of the patent as granted and of the patent application as originally filed.

The amendments to the claims as granted for the contracting state ES are based on the same claims and passages forming the basis for the new claims for the other contracting states.

Moreover, the scope of the claims as granted is delimited by incorporating the feature that the monomers of mixture A do not contain any groups which react with each other.

Thus, all amendments made to the claims as granted comply with the requirements of Article 123(2) and (3) EPC.

3. After examination of the cited prior art documents, the Board has reached the conclusion that the now claimed subject-matter of the present claims for all the contracting states is novel.
  - 3.1 It is true, that the Respondents disputed the novelty of the subject-matter of the patent regarding documents (1), (4) and (6), whereby Respondent (2) in

particular argued that the teaching of document (1) would enable a skilled person to modify Example 1 by replacing the monomers of mixture A, i.e. butyl acrylate and methyl methacrylate, by methyl acrylate and octyl methacrylate respectively, and that by doing so a novelty destroying aqueous polymer dispersion would be obtained.

- 3.2 However, document (1) discloses an aqueous polymer dispersion having an improved storage stability comprising polymer particles containing an interpolymer of (A) 95 to 99 wt.% of **at least one monomer selected from alkyl (meth)acrylates of which the alkyl group contains 1 to 8 carbon atoms**, and (B) 1 to 5 wt.% of at least one water-soluble monomer which is copolymerisable with the monomer(s) (A), whereby the particles comprise **cores** and shells, and the shells contain 50 to 90 mole% of the applied water-soluble monomer(s) and constitute 0.5 to 5 wt.% of the particles (see page 1, lines 1 to 3, and page 2, lines 7 to 20). Suitable water-soluble monomers which are copolymerisable with the monomer(s) (A) are e.g. acrylic acid and methacrylic acid (see page 2, lines 21 to 30). According to the examples, the polymer particles are prepared by emulsion copolymerising in a first step 46.2 parts by weight of butyl acrylate and 46.2 parts by weight of methyl methacrylate and in a second step a mixture of 1.5 parts by weight of a water-soluble monomer and 6.1 parts by weight of one of the monomers of the first step (see page 4, lines 30 to 40). Therefore, the dispersions in accordance with all the examples comprise polymer particles having cores and shells, whereby the cores consist of a copolymer obtained by emulsion polymerisation of only **44 mole% of butyl acrylate** and 56 mole% of methyl methacrylate (see also the letter filed by Respondent (2) on 28 April 1994, page 3, Table).

Thus, in the absence of any teaching in document (1) to select for the preparation of the cores of the polymer particles alkyl (meth)acrylates of which the alkyl groups have **at least 4 carbon atoms** in amounts of **at least 65 mole%**, in the Board's judgment, document (1) as a whole does not clearly and unambiguously teach the subject-matter as now claimed in the patent in suit.

The argument put forward by Respondent (2) that Example 1 of document (1) as modified by replacing the monomers butyl acrylate and methyl methacrylate by the monomers methyl acrylate and octyl methacrylate respectively would be novelty destroying fails, since in that case - as calculated by Respondent (2) himself (see his letter filed on 28 April 1994, page 4, Table, right column) - the cores of the polymer particles would be prepared by emulsion polymerisation of a monomer mixture of **31.1 mole% of octyl methacrylate** and 69.9 mole% methyl acrylate, i.e. by applying a monomer in accordance with the patent in suit in an amount which is even further away from the claimed value of **at least 65 mole%** than the **44 mole%** according to Example 1 itself.

- 3.3 Moreover, document (4) relates to aqueous coating dispersions comprising particles having a content of crosslinkable groups containing comonomer units of at least 10 wt.% (see Claims 1 and 8; page 7, lines 15 to 30; page 10, lines 24 to 31; and page 11, lines 11 to 25). Preferred copolymers contain as comonomer units **methyl methacrylate** in an amount of from 0 to 85% by weight, in particular 50 to 85% by weight, **butyl acrylate** in an amount of from 0 to 60% by weight, in particular 15 to 50% by weight, hydroxyethyl methacrylate in an amount of from 0 to 20% by weight, in particular 0 to 15% by weight, glycidyl methacrylate in an amount of from 0 to 20% by weight, in particular

0 to 15% by weight, acrylic acid or methacrylic acid in an amount of from 0 to 20% by weight, in particular 2 to 10% by weight (see page 12, lines 24 to 35). The dispersions are prepared by emulsion polymerisation involving the two characteristic stages known as the seed stage and the feed stage, whereby in the seed stage only a small part of the monomer mixture along with a portion of an initiator is added giving seed particles having minor diameters compared to those of the final particles (see page 8, line 38, to page 9, line 22; as well as the examples). According to the examples the dispersions are prepared by emulsion polymerisation involving a **seed stage** giving **seeds having a mean diameter of 0.22 µm** and a **feed stage using methyl methacrylate and butyl acrylate in a weight ratio of 4:1** as well as crosslinkable groups containing comonomers giving **polymer particles having a mean diameter of about 0.8 µm** (see page 16, lines 5 to 21; page 19, lines 24 to 33; page 20, lines 3 to 5; and page 21, last paragraph, to page 22, line 7).

Therefore, this document does not disclose dispersions of polymer particles having **cores constituting 60 to 95 wt.% of the particles**, let alone - as in the case of document (1) - cores obtained by emulsion copolymerisation of **at least 65 mole%** of monomers containing **(cyclo)alkyl groups having 4-12 carbon atoms**.

- 3.4 Furthermore, document (6) discloses base coat compositions comprising as an essential feature aqueous dispersions of **crosslinked** polymer particles (see page 3, line 3, to page 5, line 13, in particular page 3, lines 20 to 22 and 26 to 27, and page 5, lines 1 and 2; and page 10, line 30, to page 11, line 8).

In this context, Respondent (1) argued that the aqueous polymer dispersion described in Example 4 of this document, comprising polymer particles having cores and shells, only differs from the polymer dispersions as claimed in accordance with the patent in suit in that the cores of the polymer particles contain **butyl acrylate in an amount of 44 mole%** instead of at least 65 mole% as claimed. However, the Board does not agree with this contention because according to said example the cores of the polymer particles are obtained by copolymerising butyl acrylate and methyl methacrylate together with **allyl acrylate as a crosslinking agent** (see page 5, lines 1 to 6, and page 38, line 9), whereas according to the present claims **the monomer mixture A used for preparing the cores does not contain any groups which react with each other**. Therefore, this document does not disclose dispersions of polymer particles having **cores consisting of non-crosslinked copolymers**.

Moreover, in view of the fact that the general description of document (6) does not give any prominence for using monomers containing (cyclo)alkyl groups containing at least 4 carbon atoms for the preparation of the cores, and does not provide any information about the amounts of such monomers either, in the Board's judgment, document (6) - as in the case of documents (1) and (4) - also does not disclose polymer dispersions comprising particles containing cores obtained by emulsion copolymerisation **of at least 65 mole%** of monomers containing **(cyclo)alkyl groups having 4-12 carbon atoms**.

4. This leaves the issue of whether the subject-matter of the present claims involves an inventive step.

- 4.1 Article 56 EPC sets forth that an invention involves an inventive step if, having regard to the state of the art (in the sense of Article 54(2) EPC), it is not obvious to a person skilled in the art.

For deciding whether or not a claimed invention meets this criterion, the Boards of Appeal consistently apply the "problem-solution-approach", which consists essentially in (a) identifying the "closest prior art", (b) assessing the technical results (or effects) achieved by the claimed invention when compared with the "closest state of the art" established, (c) defining the technical problem to be solved as the object of the invention to achieve these results, and (d) examining whether or not a skilled person, having regard to the state of the art within the meaning of Article 54(2) EPC, would have suggested the claimed technical features for obtaining the results achieved by the claimed invention.

- 4.2 The Board considers that document (6) represents the closest state of the art, since this document relates - like the claimed subject-matter of the patent in suit - to base coat compositions for so-called base coat/clear coat systems, which compositions are based on aqueous dispersions of polymer particles comprising cores and shells obtained by suspension copolymerising a butyl acrylate containing comonomer mixture providing cores and further copolymerising a (meth)acrylic acid containing comonomer mixture providing shells (see page 3, line 3, to page 5, line 13; and page 10, line 12, to page 12, line 3, and Example 4).

4.3 Regarding this closest prior art the Appellant, on the basis of the experimental results contained in the patent in suit, argued essentially that aqueous base coats in accordance with the claimed invention provide improved flop values in base coat/clear coat systems.

4.4 Therefore, in the light of this closest state of the art, the technical problem underlying the patent in suit can be seen in the provision of an aqueous base coat providing improved flop values in base coat/clear coat systems (see also page 2, lines 3 to 7 and 21 to 23; and page 14, lines 11 to 13).

According to present Claim 1 this technical problem is essentially solved by an aqueous base coat based on an aqueous coating composition based on a dispersion of polymer particles obtained by emulsion polymerisation in a first step of 60 to 95 parts by weight of a monomer mixture A **not containing any groups which react with each other** and consisting of 65-100 mole% of a mixture of 60-100 mole% of a (cyclo)alkyl (meth)acrylate of which the (cyclo)alkyl group contains 4-12 carbon atoms, and 0-40 mole% of a di(cyclo)alkyl maleate and/or a di(cyclo)alkyl fumarate of which the (cyclo)alkyl groups contain 4-12 carbon atoms, and 0-35 mole% of a different copolymerizable, monoethylenically unsaturated monomer, and in a subsequent step of 5 to 40 parts by weight of a monomer mixture B as defined in the claim (providing the "shells" of the polymer particles).

With respect to the feature that monomer mixture A does not contain any groups **which react with each other** the Board observes that said feature does not exclude the use of monomers in mixture A such as hydroxyalkyl (meth)acrylates (see page 2, line 48, to page 3, line 10), since such monomers - as credibly submitted

by the Appellant - as such do not provide crosslinking, but can be used to achieve a better connection with the shells of the polymer particles by a certain crosslinking with the copolymer obtained by copolymerising monomer mixture B.

- 4.5 Having regard to the test-results according to the examples and Comparative Examples 1 to 3 of the patent in suit showing that the use of comparative monomer mixtures A containing **about 50 mole%** of butyl acrylate, i.e. a C<sub>4</sub>-alkyl containing monomer, instead of **at least 65 mole%** of such a monomer as claimed, provides a stronger decrease of the flop values of the base coats when the clear coat was applied (see in particular Table III, right column), the Board considers it plausible that the technical problem as defined above has been solved.
- 4.6 The question now is whether the cited prior art would have suggested to a person skilled in the art solving the above-indicated technical problem in the proposed way.
- 4.7 As indicated above under points 3.4 and 4.2, document (6) discloses base coat compositions for so-called base coat/clear coat systems, which compositions are based on aqueous dispersions of polymer particles comprising cores and shells, but does not suggest using dispersions of polymer particles containing cores consisting of **non-crosslinked** copolymers obtained by emulsion copolymerisation of **at least 65 mole%** of monomers containing **(cyclo)alkyl groups having 4-12 carbon atoms**. Therefore, in the Board's judgment, document (6) does not give any pointer to the skilled person that the technical problem underlying the patent in suit could be solved by providing a base coat as now claimed.



4.8 In this context, Respondent (1) argued that the composition according to Example 4 of document (6) differed from compositions in accordance with the patent in suit only in that the butyl acrylate content in the cores of the polymer particles was 44%, and that it would have been obvious to a skilled person in view of document (7) that by using a higher butyl acrylate content within the range of 65 to 100 mole% as claimed according to the patent in suit copolymer particles having a  $T_g$  below room temperature falling under the scope of the microparticle polymer as disclosed in document (6) (see page 5, lines 14 to 20) could be obtained.

The Board agrees with this Respondent that it was known from document (7) that the  $T_g$  of a copolymer obtained by copolymerising alkyl (meth)acrylates such as a mixture of butyl acrylate and methyl methacrylate lies between those of the comonomers and that the  $T_g$  of alkyl (meth)acrylates decreases at increasing alkyl groups (see page 334, lines 1 to 4 under Fig. 282; page 336, lines 1 to 6; page 337, Fig. 283; and page 339, Table 54). However, in view of the fact that, on the one hand, the microparticle polymer according to document (6) is crosslinked and, on the other hand, it was known that the  $T_g$  of a polymer not only depends of the nature of the monomers but also depends of its molecular weight and of the degree of crosslinking (see document (7), page 336, last paragraph; and document (6), page 5, lines 14 to 20), in the Board's judgment, a skilled person would not combine the technical teaching of document (7) with that of document (6).

Moreover, even if a skilled person in view of document (7) or on the basis of his common general knowledge had taken into consideration that the content

of butyl acrylate in Example 4 of document (6) could be raised to an amount of more than 65 mole%, the decisive fact for assessing inventive step remains that neither document (6) nor the combined teaching of documents (6) and (7) comprises any suggestion that by doing so **improved flop values in base coat/clear coat systems would be obtained**. In this context, it is observed by the Board that according to the established case law of the boards of appeal for establishing lack of inventive step, it is necessary to show that considering the teaching of the relevant documents as a whole, without using hindsight based on the knowledge of the claimed invention, the skilled person would have arrived at the claimed solution of **the technical problem to be solved**. However, as indicated above, a skilled person, when trying to solve the technical problem underlying the patent in suit, would not have had any reason to raise the butyl acrylate content of the comonomer mixture used according to Example 4 of document (6), let alone to omit the required crosslinking component, namely allyl methacrylate (see point 3.4 above).

- 4.9 Document (4) concerns - as indicated above under point 3.3 - aqueous coating dispersions comprising particles of a copolymer having a content of crosslinkable groups containing comonomer units of at least 10 wt.%. Moreover, it discloses that such dispersions provide coatings having an improved water and solvent resistance which are suitable for metallic coatings (see page 6, line 9, to page 7, line 8; and the examples, in particular Tables 4 and 6). However, the copolymer particles of the disclosed suspensions - as set out above - do not contain cores constituting 60 to 95 wt.% of the particles, let alone cores obtained by emulsion copolymerisation of a monomer mixture consisting **at least 65 mole%** of monomers containing **(cyclo)alkyl groups having 4-12 carbon atoms**.

Therefore, document (4) does not give any incentive to a skilled person that improved flop values in base coat/clear coat systems could be obtained by providing a base coat as claimed.

Furthermore, even if - as suggested by Respondent (1) - a skilled person had combined the teaching of document (4) with that of document (7) (see point 4.8 above, second paragraph), so that he would have derived from their combined teaching that the examples of document (4) could be carried out by using higher amounts of butyl acrylate, he would have been left with technical information which does not suggest the claimed solution of the technical problem, since according to document (4) no copolymer particles comprising cores and shells are provided.

Moreover, also in this case the decisive fact for assessing inventive step - as set out above - is not whether the skilled person **could** have used higher contents of monomers having alkyl groups containing at least 4 carbon atoms, but whether he **would** have arrived at the claimed solution of **the technical problem to be solved**.

- 4.10 Document (1), which is discussed above under point 3.2 with respect to the issue of novelty, concerns the provision of aqueous polymer dispersions having an improved storage stability, which are used for formulating paints displaying good tension (see also page 1, line 34, to page 2, line 20). Therefore, the disclosure of this document does not have any relationship with the problem underlying the patent in suit as defined above, so that the Board cannot see any reason why the skilled person should ever consider this document as a possible source of useful hints in solving said technical problem (cf. T 39/82, OJ EPO

1982, 419, point 7.3 of the Reasons). Moreover, it is clear that the teaching of document (1) does not give any pointer to the solution of the above defined technical problem, since it is silent about the preparation of particle cores by selecting a mixture of monomers of which the alkyl group has **at least 4 carbon atoms** as defined in present Claim 1 as mixture A in relatively high amounts **of at least 65 mole%**.

4.11 In conclusion, the Board finds that the aqueous base coat according to Claim 1 of the set of claims for all the contracting states other than ES involves an inventive step in the sense of Article 56 EPC. Since Claims 2 to 9 of said set of claims relate to particular embodiments of the aqueous base as claimed in Claim 1 they are also allowable.

Moreover, the set of claims for the contracting state ES relating to a process of coating a substrate by applying an aqueous base coat as claimed for the other contracting states are based on the same inventive concept, and are, therefore, likewise patentable.

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 with the order to maintain the patent as amended with the following claims and a description to be adapted:

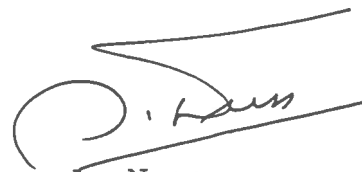
Claims 1 to 9 for all designated Contracting States  
except ES, and  
Claims 1 to 9 for ES

as submitted on 7 July 1997.

The Registrar:

  
E. Gorgmayer

The Chairman:

  
A. Nuss

