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Aktenzeichen / Case Number / N° du recours : T 280/85

Anmeldenummer / Filing No / N° de la demande : 81 305 630.6

Veröffentlichungs-Nr. / Publication No / N° de la publication : 0 055 035

Bezeichnung der Erfindung: Cementitious composition and cementitious product
Title of invention: of high flexural strength
Titre de l'invention :

Klassifikation / Classification / Classement : C 04 B 7/00, C 04 B 13/00

ENTSCHEIDUNG / DECISION
vom / of / du 22 January 1987

Anmelder / Applicant / Demandeur : Imperial Chemical Industries PLC

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence : Cementitious composition/ICI

EPO / EPC / CBE Articles 83 and 84

Kennwort / Keyword / Mot clé : "Disclosure of the invention; clarity of
claims"

Leitsatz / Headnote / Sommaire

Europäisches
Patentamt
Beschwerdekammern

European Patent
Office
Boards of Appeal

Office européen
des brevets
Chambres de recours



Case Number : T 280 /85

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 22 January 1987

Appellant : Imperial Chemical Industries PLC
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Representative : Walmsley, David Arthur Gregson
Imperial Chemical Industries PLC
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Decision under appeal : Decision of Examining Division 023
of the European Patent Office
dated 05.07.1985 refusing European
patent application No. 81 305 630.6
pursuant to Article 97(1) EPC

Composition of the Board :

Chairman : K. Jahn
Member : R. Andrews
Member : R. Schulte

Summary of Facts and Submissions

I. European patent application No. 81 305 630.6, filed on 27 November 1981 and published on 30 June 1982 (publication No. 0 055 035) claiming priority of 22 December 1980 and 27 July 1981 from two prior applications filed in the United Kingdom, was refused by a decision of the Examining Division 028 of the European Patent Office dated 5 July 1985. The decision was based on original Claims 1 to 15 and 17 and Claim 16 amended as requested in the Appellant's letter of 23 March 1984. Claim 1 was worded as follows:

1. A cementitious composition comprising
 - a) at least one hydraulic cement,
 - b) water in a proportion of not more than 25% by weight of the composition,
 - and
 - c) at least one water-soluble or water-dispersible organic polymer or copolymer in a proportion of 1 to 15% by weight of the hydraulic cement in the composition,characterised in that the hydraulic cement and the polymer or copolymer are selected such that a test composition comprising 100 parts by weight of hydraulic cement, 5 parts by weight of the polymer or copolymer, and 16 parts by weight of water when extruded in a capillary rheometer undergoes an increase of at least 25% in shear stress when a ten-fold increase in the shear rate of the test composition is effected when the shear rates as measured are within the range 0.1 to 5 second⁻¹.

II. The stated ground for the refusal was that the requirements of Articles 83 and 84 EPC were not satisfied since, in view of the almost unlimited number of possible combi-

nations of hydraulic cements and water-soluble or water-dispersible organic polymers or copolymers and the lack of suitable selection criteria, the effort required to find combinations of cements and polymers or copolymers other than those exemplified in the application which fulfil the condition specified in Claim 1 would place an undue burden on the skilled person wishing to carry out the invention and would amount to more than just trial and error.

- III. An appeal was lodged against the decision by a duly confirmed telex on 28 August 1985 and the appropriate fee duly paid. A Statement of Grounds enclosing two amended statements of claim was filed on 25 October 1985. Claim 1 of the first set of claims was a combination of original Claims 1 and 3 and Claim 1 of the second set a combination of original Claims 1, 3 and 8. With a reply to a communication from the Board the Appellant submitted on 22 November 1986 an amended statement of claim and amended pages 3, 4, 7, 8 and 10 of the description. The present amended Claim 1 differs from that refused by the Examining Division in that the expression "capable of being formed into a plastic dough and" has been inserted between the words "composition" and "comprising" in the first line of the said claim and the expression "and in that the polymer or copolymer is a partially hydrolysed vinyl acetate polymer or copolymer" has been added after the last word of the original claim.
- IV. The Appellant requests that the decision under Appeal be set aside and a patent be granted on the basis of claims 1 to 16 and amended pages 2, 5, 7, 8 and 10 of the description filed with his letter of 14 November 1986.

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is therefore admissible.
2. There is no formal objection to the current version of the statement of claim since it is adequately supported by the original disclosure. The expression "capable of being formed into a plastic dough" finds support on page 6 at lines 7 and 8 and the expression "the polymer or copolymer is a hydrolysed vinyl acetate polymer or copolymer" is derived from original Claim 3. The insertion of the word "partially" before "hydrolysed" represents an admissible clarification of the claim in view of page 8, lines 16 to 34 of the description. New Claims 2 to 16 correspond to original Claims 2, 4 to 15 and 17 and Claim 16 as amended in response to the Appellant's request in his letter of 23 March 1984.
3. The Examining Division took the position that the requirements of Articles 83 and 84 were not met in the absence of any clear criteria which would enable the person skilled in the art to select suitable combinations of hydraulic cements and water-soluble or water-dispersible organic polymers or copolymers without having to perform a large number of tests. In the opinion of the Examining Division this position was supported by the fact that Table 1 of the application discloses unsuitable compositions very similar to compositions which satisfy the criteria of the capillary rheometer test as defined in Claim 1.
 - 3.1 Insofar as the requirements of Article 83 EPC are concerned this point of view disregards the fact that the Tests F to J in Table 1 disclose mixtures containing polymers which are either clearly stated not to form part of the invention (F, G, and H; cf. page 6, line 25 to

page 7, line 7) or are not capable of being formed into the necessary plastic doughs (I and J; cf. page 6, lines 4 to 12 and page 10, line 28 to page 11, line 3). Moreover the application contains sufficient disclosure concerning the type of hydraulic cement to be used (cf. page 9, line 21 to page 10, line 22) the type of suitable polymers or copolymers (cf. page 8, line 10 to page 9, line 11) and their concentration in the mixtures (cf. page 9, lines 12 to 18 and Claim 1 under (c)) and the required amount of water (cf. Claim 1 under (b) and page 10, line 30 to page 11, line 3). In addition specific embodiments are disclosed (cf. page 17, line 18 to page 20 and the 21 Examples). Contrary to the conclusion expressed in the decision under Appeal it is therefore considered that the description of the application contains sufficient disclosure for the invention to be carried out by a person skilled in the art.

With respect to the infringement of Article 84 EPC the decision is correct in that the original claims did not comply with the requirements of this Article as regards clarity. The present claims are no longer objectionable in this respect in view of their proposed limitation and clarification. In addition to the characterisation of the cementitious composition by a rheological test there is the clear definition of the organic polymers or copolymers to be used and the limiting condition that the mixtures must be capable of being formed into plastic doughs.

4. Although the skilled person in the art would occasionally still be unsuccessful in his search for suitable combinations of hydraulic cements and partially hydrolysed vinyl acetate polymers or copolymers nevertheless the experiments necessary to transform failure into success would

neither be too onerous nor require any inventive activity on his part, particularly since he is aware from the disclosure on page 8, lines 16 to 30 in the application as originally filed that the degree of hydrolysis of the vinyl acetate polymer or copolymer has a bearing on whether or not the polymer or copolymer in combination with a hydraulic cement in the test composition satisfies the criteria of the aforementioned test.

5. From the foregoing it follows that the decision under appeal must be set aside after the Appellant had submitted an amended statement of claim which satisfies the requirements of Article 84. However, the patent sought cannot be granted since the substantive examination has not yet been completed. The Board therefore makes use of its powers under Article 111(1) EPC to remit the case to the Examining Division for further prosecution.

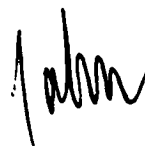
Order

For the above reasons, it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the Examining Division for further prosecution on the basis of Claims 1 to 16 received on 22 November 1986.



The Registrar:



The Chairman:

John M 3.2.87
LWA