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**Datasheet for the decision
of 11 February 2008**

Case Number: T 0438/05 - 3.3.05

Application Number: 01106342.7

Publication Number: 1179513

IPC: C03C 13/00

Language of the proceedings: EN

Title of invention:
Saline soluble inorganic fibres

Applicant:
THE MORGAN CRUCIBLE COMPANY PLC

Opponent:
-

Headword:
Saline soluble fibres/MORGAN CRUCIBLE

Relevant legal provisions:
EPC Art. 76(1)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Main and auxiliary request: extension beyond the content of the earlier application as filed (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 0438/05 - 3.3.05

D E C I S I O N
of the Technical Board of Appeal 3.3.05
of 11 February 2008

Appellant:

THE MORGAN CRUCIBLE COMPANY PLC
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 29 November 2004
refusing European application No. 01106342.7
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: G. Raths
Members: J.-M. Schwaller
S. Hoffmann

Summary of Facts and Submissions

- I. This appeal is from the decision of the examining division refusing the European Patent application No. 01106342.7 relating to "saline soluble inorganic fibres".
- II. In the contested decision, which was based on five requests, the examining division concluded that claim 1 according to the main, 1st, 3rd and 4th auxiliary request did not comply with the requirements of Art. 76(1) EPC. The 2nd auxiliary request was rejected for lack of novelty of the subject-matter of claims 1 to 4, 6 and 7 over document WO 89/12032.
- III. Along with the grounds of appeal dated 10 March 2005, the appellant maintained the main, 1st, 3rd and 4th auxiliary request on which the contested decision was based and filed a new single claim 1 as 2nd auxiliary request.
- IV. Following a communication wherein the board *inter alia* raised objections under Articles 54(1)(2), 76(1) and 84 EPC, the appellant submitted on 15 January 2008 an additional single claim 1 as 5th auxiliary request.
- V. Oral proceedings took place on 11 February 2008. The main issues were, on the one hand, the allowability of the amendments under Article 76(1) EPC and, on the other hand, the clarity of the independent claim 1 of each of the six requests then on file. After a first discussion, the appellant abandoned the six requests and submitted two new single claims 1 respectively as main and auxiliary request.

Claim 1 of the main request reads as follows:

"1. Cyclic exposure to temperatures of 1000°C or 1100°C of refractory insulation comprising saline soluble fibres having a linear shrinkage of less than 3.5% when exposed to 1000°C for 24 hours and having a linear shrinkage of less than 3.5% when exposed to 800°C for 24 hours as measured by the method of the description, the saline soluble fibres being vitreous fibres having a composition comprising (in weight %):

SiO₂ > 58% -(for MgO =< 10%) and

SiO₂ > 58% + 0.5(% MgO - 10) -(for MgO >= 10%)

CaO 0% - 42%

MgO 0% - 31.33%

Al₂O₃ 0% - <3.97%

and being essentially free of fluxing components such as alkali metal oxides and boron oxide."

Claim 1 of the auxiliary request reads as follows:

"1. Cyclic exposure to a temperature of 1000°C of inorganic fibrous materials comprising saline soluble fibres having a linear shrinkage of less than 3.5% when exposed to 1000°C for 24 hours and having a linear shrinkage of less than 3.5% when exposed to 800°C for 24 hours as measured by the method of the description, the saline soluble fibres being vitreous fibres having a composition comprising (in weight %):

SiO₂ > 58% -(for MgO =< 10%) and

SiO₂ > 58% + 0.5(% MgO - 10) -(for MgO >= 10%)

CaO 0% - 42%

MgO 0% - 31.33%

Al₂O₃ 0% - <3.97%

and being essentially free of fluxing components."

At the oral proceedings, the board raised the question of the allowability of the above claims under Article 76(1) EPC and invited the appellant to indicate the basis in the earlier application as filed (i.e. in its version as published under the international publication number WO-A-93/15028) serving as support in particular for the following amendments:

i) the term "comprising" in the feature "refractory insulation comprising saline soluble fibres" (claim 1 of the main request), respectively in the feature "inorganic fibrous materials comprising saline soluble fibres" (claim 1 of the auxiliary request).

ii) the feature "Cyclic exposure to temperatures of 1000°C or 1100°C of refractory insulation" (claim 1 of the main request), respectively "Cyclic exposure to temperatures of 1000°C or 1100°C of refractory insulation" (claim 1 of the auxiliary request).

VI. The appellant argued that a basis for the features mentioned in item i) supra would be found in the passage at page 17, lines 2 to 6, the paragraph bridging pages 5 and 6 and the second full paragraph of page 6 of the earlier application.

VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claim 1 of the main request, or in the alternative, of the auxiliary request, both requests having been submitted during the oral proceedings.

Reasons for the Decision

Allowability of the amended claims under Article 76(1) EPC

1. *Main request*

1.1 The examination pursuant to Article 76(1) EPC corresponds to the examination pursuant to Article 123(2) EPC, with the exception that it is the subject-matter of the divisional application which is compared with the content of the parent application as filed (hereinafter also called "earlier application"). In particular, it has to be examined whether the subject-matter of the claims formulated in the divisional application is directly and unambiguously derivable from the original content of the earlier application.

At issue is first the question whether the feature "refractory insulation comprising saline soluble fibres" identified under i) in item V. supra is to be regarded as subject-matter which extends beyond the content of the earlier application.

1.2 Although the appellant recognized that the feature "refractory insulation comprising saline soluble fibres" recited in claim 1 of this request had no literal counterpart in the earlier application as filed (i.e. in WO-A-93/15028), it argued that the paragraph bridging pages 5 and 6, the second full paragraph of page 6 and the passage at lines 2 to 6 of page 17 of the earlier application would however constitute a basis for the above feature.

1.3 As to the above quoted paragraphs, these read as follows:

- Paragraph bridging pages 5 and 6: "When used as refractory insulation inorganic refractory fibres are used in several forms. The fibres may be supplied as a bulk material, but in this form the fibres are difficult to handle for many applications. Alternatively the fibre may be supplied as a blanket. Blanket fibre is generally made by a process of sucking fibre from air onto a conveyor to form a blanket. Because the fibres tend to be aligned parallel to the conveyor surface they can separate easily. Accordingly the blanket fibres are secured together by adding a binder to lock the fibres together, or by needling the blanket, or both. In needling needles are passed through the thickness of the blanket to push and draw fibres to lie transverse to the blanket and so tie the fibres together. Because binders are usually resins, such as phenolic resins, they burn off on first firing. There is a desire to reduce the amount of such binders used both because of possible health implications in handling, and because the combustion products may affect the strength of the fibres. Thus needled blanket is usually preferred."

- Second full paragraph of page 6: "For some fibres needling is not possible. Crystalline fibres are generally too brittle to stand the stresses involved. For the fibres known in the industry as glass fibres (which are generally used for low temperature applications) the amount of "shot" (unfiberised glass particles) present is generally too high to allow needling as the shot damages the needles. There is no

needed blanket on the market that has a maximum service temperature in the range 900°C - 1200°C. There are needed blankets having a higher maximum service temperature but these use expensive fibres in comparison with other fibres usable (with the aid of binders) as blanket in the temperature range 900°C - 1200°C."

The question to be answered is whether the feature "refractory insulation comprising saline soluble fibres" is directly and unambiguously derivable from the two above-mentioned paragraphs.

The board observes in this respect that the above paragraphs actually disclose that inorganic refractory fibres used as refractory insulation can have several forms; specifically disclosed are the bulk and the blanket forms. The above paragraphs also disclose that when the fibres are supplied as a blanket, they can be secured together by a binder to lock the fibres together.

In contrast, because of the presence of the word "comprising", the feature "refractory insulation comprising saline soluble fibres" is not restricted to the embodiments disclosed in the above two paragraphs, but covers also further embodiments.

- 1.4 For filling the gap of information left by the two first passages, the appellant quoted the further passage at lines 2 to 6 of page 17 of the earlier application, which reads: "The method in summary comprises the manufacture of vacuum cast preforms, using 75 g of fibre in 500 cm³ of 0.2% starch solution,

into a 120 x 65 mm tool. Platinum pins (approx. 0.1-0.3 mm diameter) were placed 100 x 45 mm apart in the 4 corners". In the appellant's opinion, this passage would identify further embodiments, so that there would be sufficient support for the term "comprising".

The board notes that this passage in fact summarizes the method of manufacturing vacuum cast fibrous preforms used in the tests for evaluating the shrinkage characteristics of the saline soluble inorganic fibres disclosed in the earlier application. Hence, even if the skilled person were to understand that starch was used therein as a binder, this passage discloses nothing else than fibres having a specific form (a vacuum cast preform) and admixed with a specific binder (starch) at a specific concentration.

Thus, this passage also cannot be invoked - alone or in combination with the two other passages - as a suitable basis for the feature "refractory insulation comprising saline soluble fibres", the term "comprising" having no limiting and exhaustive meaning.

1.5 In summary, the different passages relied upon by the appellant as a basis for the above feature actually disclose fibres having a specific form (either a blanket or a vacuum cast preform) and/or fibres associated either with a specific compound (starch) or with a compound having a specific function (binder).

1.6 In contrast, the feature "refractory insulation comprising saline soluble fibres" defined in present claim 1 is not restricted to the specific embodiments described in item 1.5 supra but, owing to the presence

of the word "comprising", it also covers further embodiments. Thus, the subject-matter of claim 1 of the present request being broader than the original content of the earlier application, it must be concluded that the present divisional application contains subject-matter which extends beyond the content of the earlier application as filed, which is contrary to the requirements of Article 76(1) EPC.

2. *Auxiliary request*

Claim 1 of this request includes the feature "inorganic fibrous materials comprising saline soluble fibres". As this feature has also no literal counterpart in the earlier application as filed and differs only from the feature objected to under Article 76(1) EPC in item 1. *supra* by the substitution of the term "refractory insulation" by "inorganic fibrous materials", the reasons given for claim 1 of the main request apply *mutatis mutandis* to claim 1 of present auxiliary request, which therefore also extends beyond the content of the earlier application as filed and hence does not meet the requirements of Article 76(1) EPC.

3. As, for the reasons given above, clearly none of the appellant's requests is allowable, it is not necessary to deal with the features identified under ii) in item V. *supra*.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

C. Vodz

G. Rath