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Datasheet for the decision of 12 December 2017

Case Number: T 0274/16 - 3.3.05

Application Number: 02011134.0

Publication Number: 1264808

IPC: C04B24/38, C04B28/02

Language of the proceedings: EN

Title of invention:
Use of additives based on hydroxylalkyl guar derivatives in cementitious mortars and mortars containing them

Patent Proprietor:
LAMBERTI S.p.A.

Opponent:
CHT R. Beitlich GmbH

Headword:
Guar additive for mortar/LAMBERTI

Relevant legal provisions:
EPC Art. 54(1), 54(2), 56, 83

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It can be changed at any time and without notice.

Keyword:
Main request - Sufficiency of disclosure (no) - composition not realisable
Auxiliary request 2 - Sufficiency of disclosure (yes) - objections relate to clarity issues only
Auxiliary request 2 - Novelty (yes) - multiple selection necessary
Auxiliary request 2 - Inventive step (yes) - non-obvious solution

Decisions cited:
T 0002/80, T 0472/88, T 0522/91, T 0759/91, T 1730/09, T 0759/10

Catchword:

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Case Number: T 0274/16 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 12 December 2017

Appellant: (Opponent)	CHT R. Beitlich GmbH Bismarckstr. 102 72072 Tübingen (DE)
Representative:	dompatent von Kreisler Selting Werner - Partnerschaft von Patent- und Rechtsanwälten mbB Deichmannhaus am Dom Bahnhofsvorplatz 1 50667 Köln (DE)
Respondent: (Patent Proprietor)	LAMBERTI S.p.A. Via Piave 18 21041 Albizzate (Varese) (IT)
Representative:	Gislon, Gabriele Marietti, Gislon e Trupiano S.r.l. Via Larga, 16 20122 Milano (IT)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 26 November 2015 rejecting the opposition filed against European patent No. 1264808 pursuant to Article 101(2) EPC**

Composition of the Board:

Chairman	E. Bendl
Members:	J.-M. Schwaller
	R. Winkelhofer

Summary of Facts and Submissions

I. The present appeal lies from the decision of the opposition division to reject the opposition against European patent No. 1 264 808, independent claim 1 of which reads as follows:

"*1. Dry cementitious mortar composition characterized by the fact that it contains from 30 to 80% by weight of sand, from 30 to 80% of cement, from 0 to 7% by weight of a polymeric organic binder and from 0.1 to 1.5% by weight of an additive which essentially consists of one or more hydroxyalkyl guar derivatives having a molar substitution of from 0.7 to 3.*"

The patent further comprises six claims referring back to claim 1, claim 7 of which reads as follows:

"*7. Dry cementitious mortar composition according to claim 1 characterized by the fact that the additive contains at least a cellulose ether and at least a hydroxyalkyl guar derivative having a molar substitution of from 0.7 to 3 in a ponderal ratio of from 2:1 to 4:1.*"

II. The opponent (the "appellant") contested the decision and filed new documents with its grounds of appeal, among them a sworn declaration ("Eidesstattliche Versicherung") by its employee Andreas Bayer, and it objected under Articles 83, 54 and 56 EPC to the patent as granted.

It argued in particular that the absence in claim 1 of a dimension regarding the amount of cement in the composition, the existence of unworkable compositions due to the sum of percentages amounting to more than

100%, the absence of a method for the measurement of the molar substitution (MS) values, and a discrepancy between claims 1 and 7 together resulted in an insufficiently disclosed invention.

The appellant further held documents D2 (JP 03-126651) and D7 (technical data sheet of AGOCEL P 260 H) to anticipate the novelty of the subject-matter of claim 1 as granted.

Finally, it argued that D4 (EP 0 269 015 A2) in combination with inter alia D7 rendered obvious the subject-matter of claim 1 as granted.

III. The patentee (the "respondent") submitted a set of observations accompanied by five auxiliary requests with its response of 17 October 2016 to the grounds of appeal, among them auxiliary request 2. Concerning the discrepancy between claims 1 and 7 of the main request, it argued that the examples provided sufficient information for reproducing the product according to claim 7.

Auxiliary request 2 corresponds to the main request with claim 7 deleted. The claims of auxiliary request 2 thus correspond to claims 1 to 6 as granted.

IV. At the oral proceedings, the issues of sufficiency of disclosure, novelty and inventive step were discussed. The appellant restricted its novelty objection to D2 and objected to lack of inventive step based on a combination of document D4 with D12 (email providing Knauf Marmorit with information about the AGOCEL product line), D7 and the sworn declaration. Further, it argued that D10 (fax to STRASSERVIL EUROVENTE S.A.) and D11 (email to Knauf & Cie SCS) suggested the

claimed subject-matter by disclosing that the newly developed guar derivatives had a still higher substitution rate than AGOCEL P 260 H. After discussion, the respondent declared that it withdrew auxiliary requests 1, 3 and 4.

V. The appellant requests that the decision under appeal be set aside and that the patent be revoked.

The respondent requests that the appeal be dismissed and that the patent be maintained as granted or, alternatively, that the patent be maintained in amended form on the basis of auxiliary request 2 or 5, both dated 17 October 2016.

Reasons for the Decision

1. Main request - sufficiency of disclosure

1.1 Claim 7 requires that the additive contains at least a cellulose ether and at least a hydroxyalkyl guar derivative having an MS of from 0.7 to 3 in a ponderal ratio of from 2:1 to 4:1; the additive is thus supposed to contain from 66.67% to 80% of cellulose ether.

This requirement is however in contradiction with the requirement of independent claim 1, on which claim 7 depends, that the additive essentially consists of one or more hydroxyalkyl guar derivatives having an MS of from 0.7 to 3.

Therefore the question arises whether this contradiction is a clarity issue, as argued by the respondent (in which case claim 7 would not be objectionable at this stage of the proceedings), or an

issue of insufficient disclosure because - as argued by the appellant - the composition is not realisable.

1.2 According to the case law (see e.g. decision T 1730/09, which refers inter alia to T 759/91, T 522/91 and T 472/88), the expression "*consisting essentially of*" is to be interpreted as allowing the presence of amounts of other components in addition to the mandatory components, provided that the essential characteristics of the claimed composition are not materially affected by their presence (see Reasons 1.2.3). In particular, the latter passage contains the following statement: "*the wording 'consisting essentially of' allows* [...] *that the composition of claim 1* [...] ***consists of*** *the mandatory components listed in the claims and can contain additionally only other components which do not materially affect the essential* [...] *characteristics of the composition, e.g. minor amounts of impurities*".

In other words, this means that the amounts of other components must be so minor as to leave the essential characteristics of the mandatory components unchanged. The passage leaves no doubt that the mandatory components, and not the other components, are responsible for the properties of the composition (see the wording "***consists of*** *the mandatory components*"). Thus, even if additional compounds with properties similar/identical to the mandatory components are present, they have to be added in such amounts that they are not the main contributor to the essential characteristics of the composition ("*e.g. minor amounts of impurities*").

Decision T 759/10, which the respondent also cited, defines said expression in similar terms, namely that

specific further components not materially affecting the essential characteristics of the texturising agent can be present (see Reasons 3.4).

1.3 It follows from the above that claim 1 of the main request is to be interpreted such that the claimed additive contains one or more hydroxyalkyl guar derivatives having an MS of from 0.7 to 3 as the major component(s). Additional components which do not materially affect the essential characteristics of said mandatory components may be contained only in minor amounts.

By contrast, claim 7, which depends on claim 1, requires the additive to contain between 66.66 and 80%, i.e. the major part, of cellulose ether.

1.4 The presence of two contradicting and even mutually exclusive requirements can, in the present case, not be simply regarded as an issue concerning lack of clarity, since the skilled person is not in a position to reproduce compositions meeting both requirements at the same time. The objection concerns not only individualised embodiments, but a major part of the claimed invention.

Therefore the board concludes that the main request does not meet the requirements as defined in Article 83 EPC and is therefore to be rejected.

2. Second auxiliary request - sufficiency of disclosure

2.1 Claim 7 having been deleted from this request (compared to the main request), the remaining points that the appellant has raised do not contravene the requirements of Article 83 EPC for the following reasons:

- The absence of a method for determining the degree of MS of the hydroxyalkyl guar derivative defined in claim 1 at issue does not hinder the skilled person from producing a composition falling within the wording of claim 1 as granted, since at least one method (e.g. the H-NMR method that the respondent cited) is well known to the person skilled in the art. Whether all known methods lead to the same result is a problem linked to the boundaries of the claimed subject-matter, and is therefore a clarity issue. The absence of any indication in the patent of whether the sample to be analysed is "purified", "unpurified" or "partially purified" is likewise a clarity issue, since all these samples can easily be produced by a person skilled in the art.

- The absence of an indication of the dimension (by volume, by weight, by mole) of the range "30 to 80% of cement" is also a clarity issue, since it does not prevent the reproduction of the invention.

- The same conclusion arises for the presence in claim 1 as granted of the ranges "30 to 80% of cement" and "30 to 80% by weight of sand", which according to the case law (see e.g. T 2/80, Headnote) does not satisfy the requirement defined in the second sentence of Article 84 EPC that the claims must be clear.

3. Second auxiliary request - novelty

D2 (see also its English translations D2' and D2"), which the appellant held to be novelty-destroying, discloses a cement composition for extrusion molding

comprising a guar gum derivative, preferably a polyoxypropylene guar gum or a polyoxypropylene methyl guar gum, in an amount of from 0.06 to 7% wt (see the abstract).

An aggregate, which inter alia can be river sand or silica sand, can be present in the above cement composition in an amount of from 0 to 50 parts, preferably 2 to 40 parts, for 100 parts of the cementitious materials.

In the examples of D2, the cement composition comprises 100 parts of Portland cement, 20 parts of asbestos and 1 part of the additive. In example 3, the additive - defined as "Guar gum PO(3)" - has an MS of 3. No sand, however, is used in any of the examples.

It follows that D2 does not directly and unambiguously disclose a composition according to claim 1 of this request, since at least two choices have to be made to arrive at the claimed subject-matter, with the consequence that claim 1, and claims 2 to 6 which refer back to claim 1, meet the requirements of Article 54(1) and (2) EPC.

4. Second auxiliary request - inventive step

Applying the problem-solution approach, the board concludes that the claims of this request involve an inventive step for the following reasons:

4.1 Document D4, which the parties acknowledged as representing the closest prior art, discloses in its claim 10 a dry mortar composition comprising:
- Portland cement in an amount of at least 20% by weight;

- at least 50% by weight of an inert filler;
- about 0.2 to 0.6% by weight of a carbohydrate polymer water retentive agent selected from the group consisting of a cellulose ether and a mixture thereof with a polygalactomannan gum;
- 0.1 to 0.5% by weight of fumed silica.

According to D4, page 4, lines 42 to 53, the filler is preferably sand and the polygalactomannan gum is either natural, unmodified or derivatised and is present in an amount up to 30% by weight of the total of cellulose ether and gum components.

4.2 The problem underlying the claimed invention is described in paragraphs [0030] and [0031] of the patent as consisting in the provision of a dry mortar composition having similar adhesion properties to a mortar composition having cellulose ether as a rheology modifier additive.

4.3 As a solution to this problem, the contested patent proposes the composition according to claim 1, which is in particular characterised in that the additive essentially consists of one or more hydroxyalkyl guar derivatives having a molar substitution of from 0.7 to 3.

4.4 Tables 1 to 6 of the patent show that the problem identified in point 4.2 above has effectively been solved, since the adhesion properties provided by the claimed composition are approximately similar to or even better than those achieved with an additive based on cellulose ether. Tables 1 to 6 also show that the adhesion properties of the claimed composition are even much better than with an additive based on hydroxyl guar derivatives having a lower molar substitution

(MS ≤ 0.4) than those of claim 1 at issue. It follows that there is no need to reformulate the technical problem.

4.5 As regards the obviousness of the claimed subject-matter over the closest prior art, in particular in combination with documents D12, D7 and the sworn declaration, which the appellant held to be relevant, the following is observed:

4.5.1 D12 discloses the use of the polygalactomannan ether-based products AGOCEL P210, P 211 and P 260 H as additives for controlling water retention in mineral plasters, adhesives and fillers. It further discloses that data sheets ("Merkblätter") and an image brochure ("Imagebroschüre") were attached to the email.

The appellant's argument that the data sheets included in particular document D7 - the technical data sheet of AGOCEL P 260 H - is not convincing, because the mere information that data sheets were annexed does not constitute evidence that D7 was one of them.

4.5.2 D7 merely discloses that AGOCEL P 260 H is based on a highly substituted guar ether and is suitable for dry mortar compositions in amounts varying from less than 0.1 to 0.4%. D7 further discloses that AGOCEL P 260 H has high retention efficiency, good stability to alkalis, high dispersion and stabilisation capacity and excellent structure viscosity.

So even if D7 had been annexed to D12, it would not suggest the claimed invention, since it does not disclose that AGOCEL P 260 H can be used as a technical alternative to cellulose ether in dry mortar compositions, nor that it would provide better adhesion

compared to additives based on hydroxyl guar derivatives with an MS equal to or lower than 0.4.

4.5.3 The sworn declaration discloses that the product name "AGOCEL P 260 H" had not changed since 16 June 1997. It also discloses that the theoretical molar substitution degree of the hydroxypropyl guar derivative was between 1.9 and 2.1 during the preparation of said derivative.

The declaration, however, does not disclose that the said derivative had been present in AGOCEL P 260 H since 16 June 1997, and so this document does not disclose or suggest the claimed subject-matter either.

4.5.4 The other documents cited in the proceedings likewise do not disclose or suggest the solution as defined in claim 1 at issue to the problem underlying the patent.

In particular D10, on which the appellant relied, merely discloses that the newly developed product AGOCEL VP 1801/2 contains a guar derivative having a higher MS rate than the one used in AGOCEL P 260 H. This disclosure, however, does not render the claimed subject-matter obvious, since it discloses neither an effective molar substitution rate nor the effect underlying the invention, let alone that AGOCEL P 260 H could be a substitute in dry mortar compositions for the commonly known cellulose ether derivatives.

D11, another document on which the appellant relied, discloses that AGOCEL P 260 H provides for a better water retention and flow diameter ("Ausbreitmaß") and that it can replace cellulose derivatives in mineral plasters in an amount of up to 20%. D11 does not, however, suggest totally replacing cellulose derivatives in mortar compositions, nor does it

disclose that such products may have adhesion properties similar to cellulose derivatives.

4.6 It follows from the above considerations that the subject-matter of claim 1 is not rendered obvious to a skilled person by the prior art, with the consequence that claim 1 of the second auxiliary request involves an inventive step within the meaning of Article 56 EPC.

The same considerations apply to claims 2 to 6, which refer back to claim 1 at issue and so likewise meet the requirements of Article 56 EPC.

5. Since the claims of the second auxiliary request meet the requirements of the EPC, there is no need to consider the lower-ranking requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent on the basis of claims 1 to 6 of the second auxiliary request filed on 17 October 2016, with the description to be adapted thereto.

The Registrar: The Chairman:

C. Vodz E. Bendl

Decision electronically authenticated