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**Datasheet for the decision  
of 19 September 2007**

**Case Number:** T 0738/05 - 3.2.03  
**Application Number:** 99948803.4  
**Publication Number:** 1117880  
**IPC:** E04B 1/76, 1/78, D04H 1/70  
**Language of the proceedings:** EN

**Title of invention:**

Mineral-wool insulation board for insulation between roof-rafters, wooden-frame structures and process for its manufacturing

**Patentee:**

ISOVER SAINT-GOBAIN

**Opponent:**

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**Headword:**

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**Relevant legal provisions:**

EPC Art. 54(1), 113(1)  
EPC R. 67

**Keyword:**

"Novelty: yes"  
"Procedural violation: yes"  
"Reimbursement of appeal fee: yes"

**Decisions cited:**

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**Catchword:**

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Case Number: T 0738/05 - 3.2.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.03  
of 19 September 2007

**Appellant:** ISOVER SAINT-GOBAIN  
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**Representative:** GROSSE BOCKHORN SCHUMACHER  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 6 December 2004  
refusing European application No. 99948803.4  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** U. Krause  
**Members:** Y. Jest  
K. Garnett

## Summary of Facts and Submissions

- I. By its decision dated 6 December 2004 the examining division refused European patent application No. 99 948 803.4 based on the International patent application PCT/EP99/06964 and published under the International publication number WO-A-00/19030 for lack of novelty.
- II. The applicant lodged an appeal against this decision on 25 January 2005 and paid the appeal fee on the same date. The statement of grounds of appeal was received on 5 April 2005.
- III. Summary of the examination procedure
  1. Prior to issuing its decision the examining division referred, in a single communication dated 24 June 2002, to the deficiencies mentioned in the International Preliminary Examination Report (IPER) dated 27 November 2000 and invited the applicant to file amendments to the application documents as filed in order to overcome the corresponding objections under the provisions of the EPC.

The deficiencies noted in the IPER consisted, amongst others, of lack of novelty of the subject-matter of claims 1, 8 and 12 with respect to prior art document D1:W094/16162 (Section V of IPER) and lack of unity a posteriori of dependent claims 3 to 7, in respect of which, as a consequence, no opinion with regard to novelty and inventive step was given (Sections III and IV of IPER).

2. The application as filed ("F") on which the IPER was based contained inter alia the following claims:

Claim 1 "F":

"Insulation board (1) made of mineral wool, specifically rock wool, to act as insulation between roof rafters, wooden-frame structures and the like, which insulation board is designed so as to be elastically compressible parallel to its main surfaces in some parts at least in order to ensure its lodgement between the adjacent rafters or beams of a roof or wooden-frame structure via a wedging effect based on the elastic recovery forces resulting from compression of the board characterized in that the elastic compressible area of insulation board (1) consists of at least one folded mineral-wool fleece arranged fold to fold, the fleece being preferably folded vertically to the insulation board's two main surfaces like a meander."

Claim 6 "F":

"Insulation board according to one of the preceding claims characterized in that the length of the folded layer corresponds to the insulation board thickness (1)."

Claim 8 "F":

"Process to manufacture an insulation board according to one of the preceding claims characterized in that a mineral-wool fleece emerging from a fall shaft or the like is inserted in a meandering manner between conveyor belts or a mineral-wool fleece which at first is inserted between the conveyor belts (10, 11) without any folds, is folded in a meandrous way between two

pairs of conveyor belts (10, 11; 12, 13) running at different velocities. After folding, the insulation board is fed into a curing furnace."

Claim 12"F":

"Device to manufacture an insulation board of claims 1 to 6 characterized in that two pairs of conveyor belts (10, 11; 12, 13) are operated in sequence with the upper conveyor belt of the first and the second pair of belts preferably being positioned at a greater distance from each other than the lower conveyor belts (11, 13) or vice versa."

3. With its reply dated 26 September 2002, the applicant filed:
  - a new claim 1, which was presented as based on the combination of originally filed claims 1 and 6; and
  - comments and arguments to demonstrate novelty of the product defined in amended claim 1 over D1.

The facultative feature contained in claim 1 as filed was removed and made the subject-matter of a new dependent claim 2 while the remaining claims were merely renumbered whereby originally filed claims 8 and 12 became claims 9 and 13.

4. Amended Claim 1 of the documents on which the refusal ("R") was based reads (added feature in bold letters, removed feature crossed out):

Claim 1"R":

"Insulation board (1) made of mineral wool, specifically rock wool, to act as insulation between roof rafters, wooden-frame structures and the like, which insulation board is designed so as to be elastically compressible parallel to its main surfaces in some parts at least in order to ensure its lodgement between the adjacent rafters or beams of a roof or wooden-frame structure via a wedging effect based on the elastic recovery forces resulting from compression of the board characterized in that the elastic compressible area of insulation board (1) consists of at least one folded mineral-wool fleece arranged fold to fold **whereas the fold layers extend throughout the entire thickness of the insulation board. ~~the fleece being preferably folded vertically to the insulation board's two main surfaces like a meander~~**"

5. Refusal

In the grounds of its decision the Examining Division argued that since the amended set of claims contained only minor amendments and the arguments filed by the applicant were not convincing it was justified at this early stage to refuse the application on the ground of lack of novelty.

In item I.5 of the decision, it was acknowledged that new claim 1 was based on claims 1 and 6 as originally filed. In item II.2, it was explained that since the method- and device-claims 9 and 13 have been left unchanged (claims 8 and 12 as filed) and since they were to be read as meaning only "suitable for" manufacturing a product of the type defined in claim 1

(both as filed or as amended) their subject-matter still lacked novelty so that a refusal of the application was justified at that early stage. The Examining Division went on in item II.3 to state that even though the lack of novelty of claims 9 and 13 was sufficient to justify refusing the application, it considered that the product of amended claim 1 was still not new.

IV. During the oral proceedings of 19 September 2007 before the Board, the appellant filed a revised set of claims 1 to 9 as a new request.

The new request contains an amended product-claim 1 and an amended method-claim 7; the device-claims were deleted.

Claims 1 and 7 of the new main request read as follows (bold characters show the amendments made as compared to the wording of claims 1 and 9 as refused):

Claim 1:

"Insulation board (1) made of mineral wool, specifically rock wool, to act as insulation between roof rafters, wooden-frame structures and the like, which insulation board is designed so as to be elastically compressible parallel to its main surfaces in at least some areas in order to ensure its lodgement between the adjacent rafters or beams of a roof or wooden-frame structure via a wedging effect based on the elastic recovery forces resulting from compression of the board characterized in that the elastic compressible area of the insulation board (1) consists of ~~at least one~~ **a single** folded mineral-wool fleece

arranged fold to fold **whereby each fold extends across the entire thickness of the insulation board** ~~whereas the fold layers extend throughout the entire thickness of the insulation board.~~"

Claim 7:

"Process to manufacture an insulation board according to one of the preceding claims characterized in that a mineral-wool fleece emerging from a fall shaft or the like is inserted in a meandering manner between conveyor belts or a mineral-wool fleece which at first is inserted between the conveyor belts (10, 11) without any folds, is folded in a meandrous way between two pairs of conveyor belts (10, 11; 12, 13) running at different velocities, **the folding being made in a way that each fold extends across the entire thickness of the insulation board,** and after folding, the insulation board is fed into a curing furnace."

V. The appellant requests:

- the impugned decision to be set aside and a patent to be granted on the basis of the new request filed during oral proceedings, and
- the reimbursement of the appeal fee under Rule 67 EPC.

The appellant essentially argues that the claimed product and process differ from the state of the art shown in D1 by the fact that the insulation board, ie the final product, consists of a single folded fleece, each fold of which extending across the entire thickness, whereas such a fleece is only an intermediate product according to D1, the final



insulation board comprising at least a second layer added in its thickness.

The appeal fee should be reimbursed since the reply to the first and single official notification of the examining division showed a real attempt to meet the objections raised and because the applicant was not given sufficient opportunity to comment on the grounds of refusal. The applicant considered that it was clear that the main issue to be dealt with was the essence of the patent application, namely the product of claim 1, and the manufacturing process and the apparatus for manufacturing such a product were merely attached for additional scope of protection.

### **Reasons for the Decision**

1. The appeal is admissible.
2. The claims meet the requirements of Articles 123(2) EPC. The additional feature of amended claims 1 and 7 is disclosed in the patent application at lines 14 to 16 of page 6 and lines 1-3 of page 4 of WO-A-00/19030. The remaining dependent claims have been renumbered. The claims directed to the manufacturing device have been deleted.

3. Novelty

The product as defined in claim 1 is directed to an insulation board with an elastic compressible area made of a **single** folded mineral web which allows its installation between rafters or beams in roof-

constructions by its own self-wedging forces (see page 3, second paragraph of WO-A).

The mineral fibre-insulating plates known from D1 consist of a central core 12 produced from a folded web 70' and at least one surface layer 14 made of a compacted surface layer 78'' (see page 26, lines 2 to 7, Figures 5a). In a particular mode of realisation the compacted layer 14' is obtained by cutting off a part of the folded web structure 50'' (Figures 8 to 11). This definition of the insulating plates is also given in the corresponding independent claim; see claim 43 of D1.

Since the board of D1 is composite and contains at least an outer compacted layer, the folds of the web structure cannot extend **across** the entire thickness of the insulation panel. The reasoning given by the Examining Division in II.3 of the decision cannot be accepted because the so-called "independent in space and time" step of attaching the outer layer cannot simply be ignored or set aside, since D1 makes a distinction between the intermediate product (folded web) and the final insulation composite plate, which is to be compared with the insulation board of claim 1.

Furthermore, the elastic compressibility of the board in a direction parallel to its outer surfaces, i.e. in the longitudinal direction, is certainly not aimed at in D1 since the compressed outer layer reinforces and rigidifies the board in the said direction, which prevents any elastic compressibility of the board in its longitudinal direction so that it could be kept in place by its own wedging forces. Finally, the mere

reference in the grounds of refusal to the modulus of elasticity indicated as such in D1 (page 1, line 13) does not change anything about the above-mentioned distinction, because no conclusions can be drawn as to the elasticity of a product unless specific values of the modulus of elasticity are given.

In conclusion, the intermediate product shown in D1, namely the folded web structure 70', is not the final construction of the insulating plate and thus cannot be compared to the claimed insulation board.

The subject-matter defined in claim 1 is therefore new over D1.

The remaining documents cited in the International Search Report do not disclose the board as claimed either.

US-A-2409951 relates to a bat having corrugated convolutions permitting longitudinal extensibility but not elastic compressibility in the meaning of the invention. DE-A-3032867 and EP-A-0691439 disclose insulation panels made of plastic foam. WO-A-98/28501 shows a non-folded web structure while WO-A-97/01006 defines half-cylindrical insulating elements obtained by longitudinally and transversely cutting a folded web.

Therefore, product claim 1 and, consequently, process claim 7 for manufacturing the product of claim 1 meet the requirements of Article 54 EPC.

4. Reimbursement of the appeal fee

4.1 According to Rule 67 EPC, reimbursement of the appeal fee shall be ordered where the Board of Appeal deems an appeal to be allowable and if such reimbursement is equitable by reason of a substantial procedural violation.

4.2 The appellant complained that the decision to refuse the application was made after only a single official notification issued by the examining division, which alone should be sufficient for reimbursement of the appeal fee.

The board cannot see in this respect any good reason for departing from the established case law of the Boards of Appeal whereby it is left to the Examining Division's discretion to decide whether to issue a further invitation to present comments under Article 96(2) EPC.

4.3 However the board considers that the grounds for a lack of novelty of the product defined in claim 1"R" as indicated in the impugned decision were never communicated to the applicant.

The first and single official notification issued by the examining division in the European phase merely referred to the deficiencies mentioned in the IPER and to the corresponding objections under the EPC. Amended claim 1"R" filed in response to this notification was substantially based on the combination of claim 1"F" and its dependent claim 6"F", which had been excluded from examination in the IPER because of

an alleged lack of unity a posteriori. The appellant had thus obviously not had an opportunity to present its comments on the objections to amended independent claim 1.

- 4.4 The right to be heard according to Article 113(1) EPC has therefore been violated with respect to the product of claim 1"R" This constitutes a substantial procedural violation.

The remaining question to be addressed is whether it would be equitable to reimburse the appeal fee.

- 4.5 A first consideration is that the impugned decision was further directed to the lack of novelty of the method-claim 9"R" and of the apparatus-claim 13 "R", both remaining unchanged in substance as compared to originally filed claims 8"F" and 12"F".

In items V, 8.1 and 8.2 of the IPER it had been concluded that an apparatus having the technical features of claim 13.R was known from D1, namely a device to manufacture an insulation board of claim 1 having two pairs of conveyor belts (68',68'';72',72'') operated in sequence (see Figure 1) and that thus (*underlining added by the board*) the combination of features of claim 12"F" was disclosed in D1.

Such a statement could only mean that since on the one hand the product of claim 1"F" and on the other hand the additional technical features of the apparatus were known from D1, the subject-matter of claim 12"F" lacked novelty.

In other words the applicant was told that the outcome of the apparatus-claim was directly dependent on or at

least directly linked to the novelty issue for the product.

In the grounds of decision (see paragraph 2 of page 3) the examining division changed its reasoning, the objection now being that D1 also disclosed a device **suitable** for manufacturing an insulation board of claim 1 (bold added by the board). This line of reasoning reflects the necessary conditions for a known apparatus which is suitable for manufacturing a claimed board to be novelty destroying and deals with the merits of the apparatus-claim, in contrast to the analysis presented in the IPER, as no longer being dependent on or limited to the merits of the product of claim 1.

Although the board can agree with the examining division that the apparatus as defined in originally filed claim 12"R" lacked novelty, it considers that the change in the grounds for refusing the device-claim should have been notified to the applicant prior to any refusal and that a further invitation to present observations and/or amendments should have been sent.

The board arrives at the same conclusion when considering the arguments/grounds put forward in respect of the process-claim 8 "F". While the IPER concludes in item V,6 that the process of manufacturing an insulation board according to claim 1 is known from D1, the grounds indicated in the decision (see paragraph 2 at page 3) have been substantially changed by making the point that any known method, which was **suitable** for producing the board as claimed, would be novelty destroying.

Under these circumstances the board considers that the right to be heard has, in addition to the case of claim 1"R", also been violated with respect to the issue of the method-claim 8"F" and apparatus-claim 12"F".

- 4.6 In the present case, the essence or the main subject-matter of the invention is unambiguously directed to the product, i.e. the insulation board; this is supported by different passages of the application, namely the discussion of the state of the art (page 1 to page 3, first paragraph) and the resulting technical problem to be solved by the invention (page 3, second paragraph: "to design an insulation board"). From the application as a whole there is no doubt that the claimed method and apparatus relate to subordinated issues and are merely "added claims" for the sake of additional scope of protection.

With due consideration of these facts, the board considers that the applicant had filed a bona fide answer to the single official notification in the sense that the main issue was addressed by the filing of a new product-claim 1"R" and corresponding comments to demonstrate the difference of the claimed product compared to the state of the art disclosed in D1. The applicant was entitled to expect that the remaining issues regarding the process and the apparatus for manufacturing the board would and could be dealt with once the main claim was considered to be acceptable by the examining division.

4.7 Although the appeal is only partly allowable (claim 12"F" did not fulfil the requirements of Articles 52(1) and 54(1) EPC), the right to be heard (Article 113(1) EPC) has been violated not only for claim 1"F" but also for claims 8"F" and 12"F".

The board therefore arrives at the conclusion that the examining division committed a procedural violation (Article 113(1) EPC) in basing its decision on grounds on which the appellant had been given no opportunity to comment and that the appeal had to be filed for reasons undoubtedly related to this violation.

The reimbursement of the appeal fee is therefore equitable.

## 5. Remittal

The board, in accordance with the prevailing view in board of appeal case law, remits the case under Article 111(1) EPC to the examining division so that the applicant is not deprived of the possibility of subsequent review.



**Order**

**For these 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 9 as filed during the oral proceedings.
3. The request for reimbursement of the appeal fee is allowed.

The registrar:

The chairman:

A. Counillon

U. Krause