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**Datasheet for the decision  
of 21 November 2013**

**Case Number:** T 0684/12 - 3.2.03  
**Application Number:** 03752967.4  
**Publication Number:** 1532325  
**IPC:** E04B2/02, E04C1/42, B28B23/00  
**Language of the proceedings:** EN

**Title of invention:**

BUILDING BLOCK COMPRISING LIGHT TRANSMITTING FIBRES AND A  
METHOD FOR PRODUCING THE SAME

**Patent Proprietor:**

Losonczi, Aron

**Opponent:**

Fischer, Oliver

**Headword:**

**Relevant legal provisions:**

EPC Art. 84, 100(c), 54, 56, 114(2)

**Keyword:**

Claims - clarity (yes) - support in the description (yes)  
Grounds for opposition - subject-matter extends beyond content  
of earlier application (no)  
Late submitted material - correct exercise of discretion (yes)  
Novelty - (yes)  
Inventive step - (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern  
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Case Number: T 0684/12 - 3.2.03

**D E C I S I O N  
of Technical Board of Appeal 3.2.03  
of 21 November 2013**

**Appellant:** Fischer, Oliver  
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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
2 February 2012 concerning maintenance of the  
European Patent No. 1532325 in amended form.

**Composition of the Board:**

**Chairman:** U. Krause  
**Members:** G. Ashley  
I. Beckedorf

## **Summary of Facts and Submissions**

- I. European patent EP-B1-1 532 325 relates to a building block comprising light transmitting fibres embedded in a cast material; the patent also concerns a method for making such a block. Grant of the patent was opposed for lack of novelty and inventive step (Article 100(a) EPC). After the expiry of the period for filing an opposition, the opponent introduced a new ground of opposition, namely that of added subject-matter, based on Article 100(c) EPC.
- II. The opposition division decided that the patent could be maintained on the basis of the set of claims filed during the oral proceedings as the main request. The decision was posted on 2 February 2012.
- III. This decision was appealed by the opponent (hereafter appellant), who filed notice of appeal on 27 March 2012, paying the appeal fee on the same day. A statement setting out the grounds of appeal was received on 26 May 2012.
- IV. Oral proceedings were held on 21 November 2013.
- V. Requests

The appellant requested that the above decision be set aside and that the patent be revoked.

The respondent (the patent proprietor) requested that the appeal be dismissed.

VI. Claims

The claims upheld by the opposition division are as follows:

"1. Building object made of a cast material (4) having a capability of receiving loads and comprising embedded light transmitting fibres (6), and the fibres (6) have respective first ends and second ends capable of receiving light from illumination behind the object and guide the light towards said first ends, said building object having respective predetermined height, length and width,

characterised in that

said building object is a building block (2), and the cast material and the embedded fibres therein constitute said building block (2) with a homogenous structure, wherein said length is defined between a first lateral surface (8) and an opposite second lateral surface (10), said fibres (6) define a plurality of layers (22), in each layer (22) the fibres (6) are evenly spread and extend in longitudinal direction in parallel to each other and filling the full width of the building block (2), wherein the first end of each fibre (6) terminates at the first lateral surface (8) and the second end of each fibre (6) terminates at the second lateral surface (10), said layers filling substantially the whole height of said building block (2)."

"5. Method for production of a building object (2) made of a cast material in accordance with any of the claims 1 to 4, comprising embedded light transmitting fibres (6) in a cast material (4), such as optical

fibres or the like, which fibres permit transfer of light from one surface of the building object to an opposite surface characterised by the steps of:

- adding of a cast material (4) in an elongated mould (20) in a first step,
- arranging of a layer (22) of fibres (6) in the mould (20) in second step, which layer being constituted by a plurality of parallel arranged fibres,
- subjecting the mould to a mechanical pressure and/or vibration in a third step such that the layer of fibres is permitted to sink into the cast material to a desired depth,
- repeating said first to third steps, alternatively second to third steps, until the mould is filled with the cast material and a plurality of fibre layers,
- permitting the cast material to become solidified and form a homogenous body (28), and
- partitioning of the solidified, moulded body (28) into building blocks (2) by cutting, such that the respective ends of the fibre layers (22) end up at the lateral sides (8, 10) of the building block (2)."

Dependent claims 2 to 4 and 6 to 7 concern preferred embodiments of the building object of claim 1 and the method of claim 5 respectively.

#### VII. Prior Art

The following documents have been referred to by the appellant during the appeal proceedings:

- E1: DE-U-93 10 500
- E5: FR-A-2 743 135

E10: JP-U-55 13750  
E11: Translation of E10 into German.  
E11\*: Translation of E10 into English.  
  
E12: DE-A-25 54 212

Document E1 was filed with the notice of opposition.

Documents E5 and E12 were submitted by the opponent after the expiry of the nine month period for filing an opposition. The opposition division did not consider these documents *prima facie* to be highly relevant, and exercised its discretion under Article 114(2) EPC not to admit them into the proceedings.

E10 and E11 were filed during the opposition proceedings as third party observations (Article 115 EPC), and the translation of E10 into English (E11\*) was provided by the patent proprietor. The opposition division considered these documents to be *prima facie* highly relevant and admitted them into the proceedings.

#### *Submissions of the Parties*

The submissions of the parties are summarised as follows.

#### VIII. Article 84 EPC

The appellant argued that the claim is directed to a building object, which is subsequently defined in the claim as being a building block. The expression "building block" implies a load-bearing function, whereas a "building object" is a broader term that includes decorative elements and a building itself. This discrepancy gives rise to a lack of clarity.

The second objection under Article 84 EPC concerns the requirement that the building block has a homogenous structure. The appellant argued that it is not clear whether "homogenous" relates to the building block, the layered structure or the cast material containing embedded fibres.

The appellant also submitted that there is no support in the description for the features of fibres defining a plurality of layers, each of which has an even spread of fibres.

In response, the respondent submitted that the definition of the building object as a building block was a clear limitation of the claimed subject-matter.

The term "homogenous" is clear for the skilled person, and is also explained in paragraph [0017] of the contested patent as being the consequence of an even distribution of fibres in the block and the fact that the fibres are surrounded by cast material. The building block has a layered structure, which provides an even fibre distribution; the one does not preclude the other. The claims are thus supported by description, especially as the wording of the claims is referred to in paragraph [0011] of the description.

IX. Article 83 EPC

In the written procedure the appellant also argued that the alleged discrepancy between the description and claim 1 not only leads to a lack of clarity, but means that the skilled person is not in a position to carry out the invention.



X. Article 100(c) / Article 123(2) EPC

a) "Homogeneous Structure"

The appellant alleged that the application as originally filed (WO-A-03/097954) does not disclose a building block in which the cast material and the embedded fibres constitute a homogenous structure.

Page 3, lines 3 to 9 of the application refers to a building block with a homogenous structure, but this is in the context of receiving a load, and with the additional requirement that the fibres are evenly distributed over substantially the whole lateral surface. Likewise, the statement on page 3, lines 23 to 25 that the building block presents a homogenous structure relates to the capability of supporting large loads.

Page 4, lines 6 to 10 states that a plurality of fibre layers solidify to form a homogenous body, ie it is the layers and not the fibres that lead to a homogenous body. This agrees with the embodiment described on page 6, where the block is made up of several layers and the fibres are said to be evenly spread (line 1) or evenly distributed (line 11) in the block. Since the disputed feature in claim 1 only refers to a building block with a homogeneous structure, it amounts to an intermediate generalisation taken out of the context of the disclosure in the application.

b) "In each layer the fibres are evenly spread"

The appellant argued that there is no express disclosure in the application of an even spread of fibres in each of the layers, and contested the

opposition division's argument, that a homogeneous distribution of fibres within the building block implies a homogeneous distribution in each layer, is incorrect, since there is no disclosure in the application that the layers extend evenly throughout the entire block.

c) "Building Object"

Claim 1 has been amended such that it is now directed to a building object, whereas the original application only refers to a building block. In the written procedure the appellant argued that the expression "building object" is broader in scope than "building block" (see point VIII above), hence the amendment is contrary to Article 123(2) EPC.

d) Reply of the Respondent

The respondent submitted that the amendment, namely that "the cast material and the embedded fibres therein constitute a building block with a homogeneous structure" is taken directly from claim 1 of the application, hence complies with the requirements of Article 123(2) EPC. In addition, the overall teaching of the application is that homogeneous layers of fibres are built up to form a homogeneous building block.

Claim 1 makes it clear that the building object is a building block, hence the two expressions have the same meaning and scope.

XI. Novelty

a) Document E10:

The appellant submitted that this document discloses a building block in which light transmitting fibres are embedded. The expression "homogenous structure" has not been defined in the contested patent, hence the distribution of fibres shown in Figure 1 of E10 is considered to be a homogeneous structure as required by claim 1. This is further evidenced by the fact that the building block of E10 is said to have an even load bearing property, which can only arise if the structure is homogenous.

The embedded fibres form layers in the sense that they are arranged laterally of each other; it should be noted that in claim 1 there is no requirement that the layers must run parallel to the sides of the building block. Figure 2, a cross-section of the building block of Figure 1, shows there to be three layers of fibres in that particular embodiment. Figure 3 shows a further embodiment having two rows of evenly spread fibres, which enter the top surface of the building block.

E10 thus discloses all the features of claim 1.

The respondent argued that neither the drawings nor the teachings of E10 disclose a building block having a homogeneous structure and with the fibres equally spread in layers. In particular, in Figure 1 the height and distance between the fibres are uneven. Since Figure 2 shows a cross-section along a vertical plane, it cannot disclose any information concerning the horizontal layers. Figure 3 concerns a different embodiment to that of Figures 1 and 2, in which the

fibres make a right-angled turn within the building block; it is not possible to determine layers of evenly spread fibres from the rough sketch shown in Figure 3.

b) Document E1:

In the statement setting out the grounds of appeal, the appellant alleged a lack of novelty in light of E1. It was argued that the requirement in E1 that there is an even distribution of fibres throughout the material implies that the fibres would be evenly arranged in layers, resulting in a homogenous structure.

The respondent argued that the statement in E1 that the building block has a homogenous structure does not necessarily mean that there exists a plurality of layers in which the fibres are evenly spread.

XII. Inventive Step

a) Appellant's Case:

The appellant alleged a lack of inventive step in light of E10 and the general knowledge of the skilled person.

Should it be considered that the claimed subject-matter differs from E10 in that the fibres are evenly arranged in layers, then it would be obvious to provide such an arrangement. The skilled person knows that the layout of fibres (random or equal distance apart, crossing each other or parallel to the sides of the block) depends on the future use of the building block. The claimed arrangement is therefore merely within the general knowledge of the skilled person.

The appellant also argued a lack of inventive step starting from the disclosure of E1, which describes a building block having uniform optical and mechanical properties.

Starting from E1, the problem to be solved is to improve the uniformity of the emitted light.

The skilled person is well aware that an even distribution of fibres will result in a more uniform light emission, and that such a distribution can be achieved by arranging the fibres in layers. This solution is also disclosed in E10, as set out above in the discussion of novelty. In particular, Figure 3 of E10 clearly shows the fibres to be evenly spread in two parallel layers.

The claimed subject-matter thus lacks an inventive step with respect to E1 and the general knowledge of the skilled person, or the combination of E1 and E10.

b) Respondent's Case:

The respondent argued that, although E1 discloses an even distribution of fibres, these, like those of E10, are relatively small in number. As set out in the disputed patent (paragraph [0010]), the object is to provide a semi-transparent building block; this implies that, starting from E1 or E10, the number of fibres must be increased.

E10 requires that the fibres are fixed in the mould prior to casting, which would be difficult if there were a large number of fibres spread evenly in layers. There is thus no incentive for the skilled person to adopt such an arrangement of fibres.

Given that there is no teaching in either E1 or E10 to employ layers of evenly spread fibres, the claimed subject-matter has an inventive step.

### **Reasons for the Decision**

1. The appeal is admissible.
2. Article 84 EPC
  - 2.1 Granted claim 1 has been amended to define the cast material and embedded fibres as constituting a building block with a homogeneous structure. The appellant has raised three objections under Article 84 EPC concerning this amendment.
  - 2.2 Firstly, the appellant argues that claim 1 is directed to a "building object", which covers a broad range of objects, whereas the expression "building block" implies a load-bearing function; this discrepancy gives rise to a lack of clarity.

The requirement that the building object is a building block was already present in granted claim 1 and was not the subject of an amendment. Therefore, as set out in Article 101(3) EPC, the alleged discrepancy is not open to an objection under Article 84 EPC.

Notwithstanding the above, the board is of the view that the skilled person is fully aware what a building block is. The appellant is correct in arguing that it is illogical to equate a "building object", which includes decorative elements and the building itself, to a "building block". The skilled person, knowing what is meant by a "building block", would also consider

such an interpretation to be unreasonable. Defining the building object to be a building block is a clear limitation of the scope of the claim.

- 2.3 The second objection arises out of the amendment and concerns the requirement that the building block has a homogenous structure. The appellant argued that it is not clear whether "homogenous" relates to the layered structure or the cast material containing embedded fibres.

The board agrees with the opposition division (point 2.3 on page 5 of the contested decision) that the skilled person understands the meaning of "homogenous", ie that the fibres are not concentrated in any one part of the block and that their distribution throughout the block is uniform. As stated by the respondent, the fact that the building block is made up of a layered structure does not mean that the structure cannot be homogeneous. The statements in the description that the building block has a homogenous layered structure (paragraph [0012]), that the fibres are wholly integrated with a cast material presenting thereby a homogeneous structure (paragraph [0013]) and that the fibres are evenly distributed in the block with the cast material substantially surrounding respective fibres to form a homogenous structure (paragraph [0017]) are all consistent with the understanding of the skilled person that the building block itself has a homogenous structure.

- 2.4 The appellant also submits that the feature of fibres defining a plurality of layers, with each layer having an even spread of fibres, is not supported by the description. This too was present in claim 1 as granted

and hence is not open to objection under Article 84 EPC. Nevertheless, the following comment can be made.

The requirement in Article 84 EPC that the claims must be supported by the description means that it is not admissible to claim something which is not described. In the present case, paragraph [0012] of the contested patent states that the embedded fibres constitute a building block with a homogenous layered structure. As argued by the opposition division, if the block has a homogeneous structure, it follows that the individual layers must have an even distribution. The claimed subject-matter is thus consistent with, and hence supported by, the description.

2.5 In summary, the amendment meets the requirements of Article 84 EPC.

3. Article 83 EPC

The appellant also submitted in the written procedure, that the discrepancy between the description and claim 1 concerning the meaning of homogeneous not only leads to a lack of clarity, but means that the skilled person is not in a position to carry out the invention.

This objection was raised late in the appeal proceedings (with the letter of 12 December 2012). As stated above, it is considered that a skilled person would understand the meaning of the term "homogenous". The description of the disputed patent describes a method for making a building block having a homogenous structure, such that the skilled person is in a position to carry out the invention. The objection under Article 83 EPC is thus *prima facie* unfounded and since it was raised at a late stage in the appeal



proceedings, the board considered it inappropriate to admit it into the proceedings.

4. Article 100(c) / Article 123(2) EPC

4.1 The appellant submitted that the application as originally filed fails to disclose that the cast material and the embedded fibres therein constitute a building block with a homogenous structure.

Reference to a building block having a homogeneous structure can be found in several places in the application:

For example, claim 1 of the application is directed to a "building block... characterised in that the cast material and the embedded fibres therein constitute a building block with a homogeneous structure...".

On page 3, lines 4 to 10, it is said that "the cast material and the embedded fibres therein constitute a building block with a homogeneous structure... whereby light can be emitted from the evenly distributed fibre ends..."; and at lines 23 to 25 on page 3, "The building block according to the present invention presents a homogeneous structure with the capability to receive large loads."

Without doubt, a building block having a homogeneous structure is disclosed in the original application.

The claimed subject-matter does not amount to an intermediate generalisation, as alleged by the appellant. The claim requires that the building block contains fibres defined in a plurality of layers, as is disclosed in the application. The fact that the

building block is capable of withstanding large loads and may have other features does not detract from the clear disclosure that it has a homogeneous structure.

- 4.2 The appellant also submitted that the feature of having a plurality of layers, in each of which the fibres are evenly spread, is not disclosed in the original application.

According to the application, the building block is built up from a plurality of fibre layers (page 4, line 6 to 8). It is also said (page 6, line 34 to page 7, line 4) that: "The fibre layers are fed continuously in the mould from a fibre roll via a nozzle that provides for an even distribution of fibres along the whole, transverse direction T of the mould.". The layers are built up to form a homogenous block.

It is thus apparent that the building block is made up of layers of fibres and these have an even distribution across the whole, transverse direction. In addition, the argument of the respondent and opposition division, that if the block itself has a homogeneous structure, the individual layers must also be homogeneous, is persuasive. Reading the application as a whole, the skilled person would understand that the fibres in the layers are themselves evenly distributed.

- 4.3 "Building Object"

Although the expression "building object" is broader in meaning than "building block", as argued by the appellant, claim 1 defines the building object to be a building block. Consequently, the two expressions have the same meaning, as set out in the contested decision (point 3.3.1 on page 6 of the decision).

4.4 In summary, the amendments meet the requirements of the Article 123(2) EPC.

5. Admissibility of Documents E5, E12 and E10/E11/E11\* into the Appeal Proceedings

5.1 Documents E5 and E12 were filed during opposition proceedings with the opponent's letter of 2 August 2010, ie after the nine month period for filing an opposition. The opposition division was of the opinion that neither of these documents was *prima facie* relevant, hence decided not to admit them into the proceedings. The board thus has to consider whether the opposition division exercised its discretion under Article 114(2) EPC correctly in reaching this decision. The reasons given by the opposition division are set out in point 4 (page 7) of the contested decision.

Concerning E5, no arguments were presented by the appellant, then opponent, as to why the document was relevant and why it was filed late, despite the fact that the opposition division pointed out this deficiency in its invitation to oral proceedings. Hence in the board's view, the decision of opposition division not to admit this document was reasonable.

The appellant argued that, as E5 had been cited in the international search report, it could be referred to at any time and could not be considered as being late-filed. It is established case law of the boards of appeal (see the Case Law of the Boards of Appeal, 7th Edition, IV.C.1.5) that documents cited on the search report are not automatically a part of opposition or appeal proceedings. Document E5 was discussed for the first time in the statement setting out the grounds of

appeal, however the board was of the view that it was of little relevance, as set out in the annex to the summons to oral proceedings (point 8.2). Consequently the board upholds the decision of the opposition division not to admit E5 into the proceedings.

5.2 Concerning E12, the opposition division was of the view that the document was not *prima facie* relevant, as there was no mention of any light transmitting properties (point 4.6 of the contested decision). E12 was referred to for the first time in these appeal proceedings during the oral proceedings. Article 12(2) of the Rules of Procedure of the Boards of Appeal (RPBA) requires that the statement of the grounds of appeal contain the appellant's complete case. In view of the extremely late filing of E12 in the appeal proceedings, and the fact that the oral proceedings would have to be adjourned while both the respondent and the board studied the document, the board exercised its discretion under Article 13(1) RPBA not to admit it into the proceedings.

5.3 Although filed after the nine month opposition period, E10 (along with a translation in German, E11) was filed by a third party in accordance with Article 115 EPC. The patent proprietor also provided a translation of E10 into English (E11\*). The opposition division considered that these documents could prejudice the maintenance of the patent, and hence admitted them into the proceedings. E10, E11 and E11\* will therefore be considered in these appeal proceedings.

6. Novelty (Article 54 EPC)

6.1 Document E10 (E11/E11\*)

E10 discloses a building block made of a cast material in which light transmitting fibres are embedded. The document does not explicitly discuss the arrangement of the fibres, and the figures merely show a schematic representation of the invention. It is thus apparent that the distribution of fibres plays no particular role in the invention of E10. The distribution depicted in Figure 1 indicates that it is random and, as argued by the appellant, such a distribution can be considered to be homogenous structure within the meaning of claim 1, since it is without regions that are more dense or less dense.

According to the appellant, layers of evenly spaced fibres can be derived from Figures 2 or 3. Figure 2 represents a vertical cross-section through the building block of Figure 1, and thus does not provide any information about the arrangement of fibres beyond the three shown in the figure.

Figure 3 is a sketch that depicts fibres entering the top face of the block and leaving it at 90° by one of the side faces. Eight fibres are shown schematically, and given the crude nature of the sketch it is impossible to discern fibres evenly spread in layers.

The appellant also argued that such an arrangement can be identified in the random distribution shown in Figure 1. However, this figure merely shows randomly dispersed fibres that are not evenly spread in layers, as would be understood in the conventional sense by a skilled person.

The test for novelty is strict, with the requirement that features be directly and unambiguously derivable from the prior art document. In the present case, E10 does not disclose to the required standard a block in which the fibres define a plurality of layers and that each layer contains evenly spread fibres.

6.2 Document E1

Document E1 discloses a building block in which light-conducting fibres are embedded. There is no indication in E1 that the fibres define a plurality of layers and in each layer the fibres are evenly spread. The board does not agree with the appellant's submission that the statement that the fibres are evenly distributed in the building block inevitably means that they exist evenly spaced in layers. As set out above, a random distribution would not clearly and unambiguously lead to layers as understood by the skilled person.

6.3 The subject-matter of claim 1 is thus novel with respect to E10 and E1.

7. Inventive Step (Article 56 EPC)

7.1 The appellant argues that the claimed subject-matter lacks an inventive step starting from the disclosure of E1.

The building block of E1 contains optical fibres, which are said (paragraph bridging pages 1 and 2) to occupy a relatively small proportion of the block, but are evenly distributed. Further information concerning the arrangement of the fibres is absent from E1. As argued

by the respondent, light emitted from such a block would appear as points of light or stars.

7.2 Starting from this disclosure, the objective problem to be solved would be to provide a building block having a more uniform emission of light whilst maintaining its mechanical properties.

7.3 The appellant submits that the solution is provided by E10.

A homogeneous lighting effect is created in E10 by having a random arrangement of fibres, which may or may not produce the semi-transparent object mentioned in the contested patent (paragraph [0010]). The appellant is correct in saying that claim 1 does not define the size and number of fibres, but nevertheless there is the requirement that they are evenly spaced in layers.

As set out above, E10 does not disclose layers of evenly spread fibres, hence there is no indication to the skilled person that such an arrangement would solve the problem.

7.4 If inventive step is assessed starting from document E10, the objective problem to be solved is also to improve further the uniformity of the emitted light.

As set out above, there is no indication in the prior art that the fibres should be evenly arranged in layers in order to solve the problem.

Furthermore, in E10 the fibres are pre-mounted in a mould and cement or the like is poured around them. As argued by the respondent, evenly spaced fibres arranged in layers would be more difficult to fix in the mould

in this manner. Consequently, the skilled person starting from the disclosure of E10 would not consider the claimed arrangement to be a practical solution to the problem.

7.5 The subject-matter of claim 1 thus has an inventive step in light of E10, or the combination of E1 and E10.

### **Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



C. Spira

U. Krause

Decision electronically authenticated