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**Datasheet for the decision
of 7 March 2007**

Case Number: T 0516/05 - 3.2.05

Application Number: 98902562.2

Publication Number: 0952908

IPC: B29C 44/00

Language of the proceedings: EN

Title of invention:

Injection molding of microcellular material

Patentee:

Trexel, Inc.

Opponents:

- 01 Peguform GmbH & Co. KG
03 Bernhard Drewes
04 Prof. Dr. Erich Schürmann
06 CLARIANT INTERNATIONAL LTD.
07 SULZER Chemtech AG

Headword:

-

Relevant legal provisions:

EPC Art. 54, 84, 87, 123

Keyword:

"Inadmissible extension - no"
"First priority - not valid"
"Novelty (main request) - yes"
"Remittal - yes"

Decisions cited:

G 0002/98

Catchword:

-



Case Number: T 0516/05 - 3.2.05

D E C I S I O N
of the Technical Board of Appeal 3.2.05
of 7 March 2007

Appellant: Trexel, Inc.
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Representative: HOFFMANN EITLE
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Respondent I: Bernhard Drewes
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Representative:

Respondent II: CLARIANT INTERNATIONAL LTD.
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Representative:

Respondent III: SULZER Chemtech AG
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CH-8404 Winterthur (CH)

Representative: Ehram, Christian
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Respondent IV:
(Opponent 01)

Peguform GmbH & Co. KG
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Representative:

Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 1 April 2005
revoking European patent No. 0952908 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: W. Zellhuber
Members: H. Schram
R. Menapace

Summary of Facts and Submissions

- I. The appeal is against the decision of the Opposition Division revoking European patent No. 0 952 908 on the grounds that neither the subject-matter of claim 1 of the main request (i.e. claims as granted) nor the subject-matter of claim 1 of the auxiliary requests A, B and C of the appellant (patent proprietor) was novel, Article 54 EPC.
- II. On 14 September 2006, opponent 04 withdrew his opposition.
- III. Oral proceedings were held before the Board of Appeal on 7 March 2007 in the absence of respondents II and III, whose representatives had previously informed the Board that they would not attend.
- IV. The appellant requested that the decision under appeal be set aside and the patent in suit be maintained on the basis of the following documents submitted on 7 February 2007:
- (i) main request: claims 1 to 20 submitted as main request; or
 - (ii) first and second auxiliary requests: claims 1 to 20 submitted as first and second auxiliary requests, respectively; or
 - (iii) third auxiliary request: claims 1 to 19, submitted as third auxiliary request.

Respondents I (opponent 03), II and III requested that the appeal be dismissed.

Respondent IV (opponent 01) did not file any observations or requests in the appeal proceedings.

V. The following documents were *inter alia* referred to in the appeal proceedings:

D5: EP-A 0 799 853

E1: US-A 5,158,986

E19: JP-A 08 283 443

E21: JP-A 08 085 128

VI. Claim 1 of the main request reads as follows:

"1. An article comprising: a molded microcellular polymeric article formed by urging a flowable material into a molding chamber and allowing the microcellular article to form therein having a shape essentially identical to that of a molding chamber, including at least one portion having a cross-sectional dimension of no more than about 3.175 mm (0.125 inch) and a length to thickness ratio of at least 75 : 1."

VII. Before opening the debate on the issue of novelty at the oral proceedings, the Chairman drew the attention of the parties to the provisional opinion of the Board that it appeared that the term "microcellular" in claim 1 had to be construed in the light of the description of the patent in suit (see paragraph [0022]) as meaning that the maximum cell size is less than about 100 microns in diameter, or that the cell density

is generally greater than at least about 10^6 cells per cubic centimeter, or both.

VIII. The appellant argued in writing and during the oral proceedings essentially as follows:

The subject-matter of claim 1 of the main request was novel, since none of the cited documents filed in the opposition-appeal proceedings disclosed a molded microcellular polymeric article having a length to thickness ratio of at least 75 : 1.

IX. Respondent I did not raise objections during the oral proceedings against claims 1 and 20 of the main request under Articles 84, 123(2), 123(3) and 54 EPC.

X. Respondent II argued in writing essentially as follows:

Former independent claim 20 as granted was converted into a dependent claim (Nr. 20 in the main request). This dependent claim no longer contained the expression "three-dimensional", so that the requirements of Article 123(3) EPC were not met.

Reasons for the Decision

Main request

1. *Right to priority of the patent in suit (Article 87 EPC)*

The first priority document of the patent in suit, viz. US 35631 P, is silent about the upper limit of the cross-sectional dimension reiterated in claim 1 of the

main request ("no more than about 3.175 mm (0.125 inch)").

It follows that the patent in suit does not enjoy the priority of US 35631 P, namely 16 January 1997, see the decision of the Enlarged Board of Appeal G 2/98 (OJ EPO 2001, 413 - Requirement for claiming priority of the "same invention"), point 9 of the Reasons.

Consequently, document D5 constitutes prior art within the meaning of Article 54(2) EPC.

2. *Allowability of the amendments (Articles 84 and 123(2), (3) EPC)*

A basis in the application documents as filed for the feature added to claim 1 as granted, viz. *and a length to thickness ratio of at least 75 : 1*, is the passage on page 28, lines 22 to 27, of the application as filed (published version WO 98/31521): *As mentioned, the invention provides for the production of molded foam polymeric material, preferably microcellular material having thin sections. In particular, articles having high length-to-thickness ratios can be produced. The invention provides injection molded polymeric materials having length-to-thickness ratios of at least about 50:1 where the polymer has a melt index of less about 10. Preferably the length-to-thickness ratio is at least about 75:1, more preferably at least about 100:1, and more preferably still at least 150:1 (emphasis added by the Board).*

Since no feature has been deleted from claim 1 as granted, the protection conferred by said claim has not been extended.

Independent claim 20 as granted has been deleted. Deletion of an independent claim as such cannot, logically, lead to an extension of the protection conferred, Article 123(3) EPC.

The feature "[... has] three intersecting, principal axes corresponding to the three dimensions, one of the dimensions associated with a first axis varying as a function of position along a second perpendicular axis" of former independent claim 20 has been retained as dependent claim 20. A basis for this feature is claim 20 as originally filed. The fact that the expression "three-dimensional" pertaining to the expression "microcellular polymeric article" in claim 20 as originally filed has not been included in claim 20 of the main request cannot be said to be an intermediate generalization contravening Article 123(2) EPC, since not only the three-dimensionality of the claimed article is implicit (as it is for any physical article), it is also explicitly claimed in different wording (cf. the feature [... has] three intersecting, principal axes corresponding to the three dimensions).

Claims 1 and 20 of the main request thus meet the requirements of Articles 123(2) and (3) EPC. The claims 1 to 20 define the matter for which protection is sought and, as far as they differ from the claims as granted, are clear and concise (cf. Article 84 EPC). It may be noted that the description has not yet been brought into conformity with the new claims on file, cf. Article 84 EPC, second sentence.

3. *Interpretation of the term "microcellular" in claim 1*

In paragraph [0022], lines 9 to 11, of the patent in suit the following definition is given: "*For purposes of the present invention, microcellular material is defined as foamed material containing cells of size less than about 100 microns in diameter, or material of cell density of generally greater than at least about 10^6 cells per cubic centimeter, or preferably both.*"

Taking the wording of the first alternative of this definition, viz. "*material containing cells of size less than about 100 microns in diameter*" as such, each cell of the microcellular material must have a size of less than about 100 microns in diameter. The meaning of the expression "*containing cells of size less than ...*" is thus "*containing cells of a maximum size less than ...*". The Opposition Division held that the first alternative of the above definition had to be construed as meaning "*containing cells of average size less than ...*", on the ground that otherwise the statement "*The microcellular material preferably has a maximum cell size of about 100 microns*" in paragraph [0023], lines 17 and 18, of the description of the patent in suit, would "at least be of no use, and even induce a lack of clarity, if embodiments presented as preferable are expressed identically to the invention in general" (see Reasons, point 4.1, of the decision under appeal).

However, said statement in paragraph [0023] can very well be understood as meaning, that preferably the microcellular material meets the requirement laid down by the first alternative of the definition rather than that laid down by the second alternative of the

definition, namely having a cell density $> 10^6/\text{cm}^3$. Thus, no ambiguity or redundancy arises when said statement is read in conjunction with the definition (first alternative) understood as "*containing cells of a maximum size less than ...*" - on the contrary, the statement in paragraph [0023] then confirms that the literal interpretation of the cell size described in paragraph [0022] is the one which must prevail.

For these reasons, in the Board's judgment the term "microcellular" in claim 1 defines an article which contains cells of a maximum size less than about 100 microns in diameter and/or has a cell density $> 10^6/\text{cm}^3$, which interpretation was not contested by the appellant during the oral proceedings before the Board.

4. *Objection of lack of novelty (Article 54 EPC)*

In the decision under appeal the document E19, E20, E21 and D5, were held to be novelty destroying in respect of claim 1 of the main request, first auxiliary request, second auxiliary request and third auxiliary request, respectively.

However, none of these documents discloses an article comprising a molded microcellular polymeric article with all the features of claim 1. In particular, the feature "having a length to thickness ratio of at least 75 : 1" is not disclosed in any of those documents.

It follows that the subject-matter of claim 1 according to the appellant's main request is novel within the meaning of Article 54 EPC.

5. *Remittal to the department of first instance*

The decision under appeal revoking the patent was exclusively based on the finding that the grounds for opposition mentioned in Article 100(a) EPC (lack of novelty, Article 54 EPC) prejudiced the maintenance of the patent.

Since the subject-matter of claim 1 of the main request of the appellant is novel, there is no need to consider the appellant's further requests.

Since in particular the ground for opposition, lack of inventive step, Article 56 EPC, raised by respondents I to IV and mentioned in Article 100(a) EPC was not examined by the Opposition Division, the Board considers it appropriate to make use of its discretionary powers under Article 111(1) EPC and to remit the case to the department of first instance for further prosecution.

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 for further prosecution on the basis of claims 1 to 20 filed as main request on 7 February 2007.

The Registrar:

The Chairman:

D. Meyfarth

W. Zellhuber