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**Datasheet for the decision
of 8 May 2014**

Case Number: T 1368/10 - 3.4.02

Application Number: 06022047.2

Publication Number: 1876484

IPC: G02B7/02

Language of the proceedings: EN

Title of invention:

Lens frame, manufacturing method of the same, metal mold for molding the same, and lense positioning method

Applicant:

Fujifilm Corporation

Headword:

Relevant legal provisions:

EPC 1973 Art. 111(1)

Keyword:

Remittal to the department of first instance - (yes)

Decisions cited:

Catchword:



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Case Number: T 1368/10 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 8 May 2014

Appellant: Fujifilm Corporation
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Minato-ku
Tokyo 106-8620 (JP)

Representative: Klunker . Schmitt-Nilson . Hirsch
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 29 January 2010 refusing European patent application No. 06022047.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman A. Klein
Members: A. Hornung
B. Müller

Summary of Facts and Submissions

- I. The applicant appealed against the decision of the examining division refusing European patent application number 06022047.2 on the basis of Article 56 EPC.
- II. The applicant requested that the decision of the examining division be set aside and that a patent be granted on the basis of the set of claims filed during the oral proceedings held before the board.
- III. Those oral proceedings were held on 8 May 2014.
- IV. The present decision refers to the following documents.
D1: US 6,108,146
D2: US 4,812,015
D4: JP 200337270
D5: JP 62002219
- V. In its decision, the examining division expressed the view that the subject-matter of claim 1 as originally filed lacked an inventive step with respect to the disclosure of D1 in combination with the disclosure of D2.
- VI. Present independent claim 1 reads as follows:
- "1. A manufacturing method of manufacturing a lens frame (1) comprising a cylindrical body (10) having at least three ribs (20) on an outer circumferential surface (10a) of the cylindrical body wherein on the inner circumferential surface (10b) of the cylindrical body, a difference ($r_2 - r_1$) between an inner radius (r_1) of contact portions (14) where the ribs are formed and a radius (r_2) of spaced portions (15) of the inner circumferential surface (10b) is 2 μm or more,

wherein the ribs are formed as wall shape along the axis of the cylindrical body, and

wherein the inner circumferential surface of the cylindrical body has the contact portions for contacting with a lens and the spaced portions for not contacting with the lens,

the method comprising:

preparing a mold (3) for molding the lens frame,
injecting a molding material into a cavity of the mold for molding the lens frame; and
removing the molded lens frame from the cavity of the mold for molding the lens frame,

wherein the mold includes:

an inner mold (40) having a cavity surface (41) for an inner circumferential surface (10b), the cavity surface (41) having a circular cross-section and a circularity of 2 μm or less; and

an outer mold (30) placed around the inner mold (40), and comprising: cavity surfaces (31) for an outer circumferential surface (10a) corresponding to the outer circumferential surface of the cylindrical body; and rib cavity surfaces (32) respectively corresponding to the ribs,

wherein the rib cavity surface for the ribs are formed as a groove shape along the axis of the cylindrical body."

Reasons for the Decision

1. Present claim 1 defines a method for manufacturing a lens frame, the lens frame having an inner and outer

circumferential surface. On the inner circumferential surface of the lens frame, protrusions of 2 microns or more are formed so as to be in contact with a lens. On the outer circumferential surface of the lens frame, ribs are formed at a position where the contact portions on the inner circumferential surface are formed. In order to provide such a lens frame, the claimed method uses an inner mold having a circular cross-section whose circularity is 2 microns or less. Present claim 1 corresponds to a method of manufacturing a lens frame as shown in figure 1 of the application by using an inner mold as shown in figure 3 of the application. The use of the inner mold as shown in figure 4 appears to be excluded by the wording of present claim 1.

2. The claimed subject-matter corresponds to the independent method claim 5 as originally filed and further limited, inter alia, by the inclusion of features taken from claims 1 and 14 as originally filed.

3. Molding shrinkage (%) during cooling is known to be proportional to the thickness of the molded piece. This, in the board's view, should lead to protrusions on the inner circumferential surface of the lens frame at positions not as claimed, but at positions located between those positions where the ribs are formed on the outer circumferential surface of the lens frame. This is confirmed, for instance, by the disclosure of the prior art documents D4 (see [0006]) and D5. The application as filed provides hardly any explanation as to why a different result is obtained by the claimed method.

This marked distinction to the available prior art documents rather points to the existence of an inventive step of the claimed method in view of the prior art documents presently on file (Article 56 EPC 1973). However, whether the disclosure of the application as filed is sufficient for the

skilled person to achieve such unconventional effect might still have to be considered (Article 83 EPC 1973).

4. The decision under appeal did not deal with the subject-matter as presently claimed. Therefore, the argumentation of lack of inventive step according to the present refusal is no longer valid. For that reason already the appealed decision must be set aside.
5. In order to give the applicant the opportunity to have the claimed subject-matter examined by two instances, the board decides to make use of its discretion under Article 111(1) EPC 1973 in remitting the case to the examining division 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.

The Registrar:

The Chairman:



M. Kiehl

A. Klein

Decision electronically authenticated