Title: A METHOD FOR MANUFACTURING AN INJECTION MOLDED THERMOPLASTIC OPHTHALMIC LENS HAVING AN ENCAPSULATED LIGHT POLARIZING ELEMENT

Abstract: A method for manufacturing a synthetic resin thermoplastic ophthalmic lens (10) by injecting a thermoplastic material (14) immediately adjacent to each side of a light polarizing wafer (12) situated within a mold cavity (18). The light polarizing wafer (12) includes tab appendages (22) which are positionable into registration notches (26) in the mold (30) in order to maintain the wafer (12) in a desired position in the mold (30) during lens formation. The thermoplastic material (14) is then injected around the wafer (12), wherein a compression procedure is implemented where the contents of the mold cavity (18) are compressed. The mold cavity (18) is compressed to a predetermined position to achieve a desired shape of the lens (10). Uniform compression is exerted over the entire surface of the lens (10) resulting in all stresses being uniformly distributed over the lens (10) surface to significantly negate stress-induced birefringence in the formed ophthalmic lens (10).
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : B29D 11/00; B32C 45/56
US CL : 264/132, 1:34, 1:7, 2:9; 425/121, 555, 808
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 966/1.1, 1.38, 1:54, 1:7, 2:9, 3:28; 425/110, 121, 555, 808, 819

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category*</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 5,757,459 A (BHALAKIA et al) 26 May 1998, col. 13, lines 24-30, col. 16, lines 6-7, col. 18, lines 52-67</td>
<td>1, 2, 13, 14 3-12, 15-23</td>
</tr>
<tr>
<td>Y</td>
<td>US 3,674,587 A (LALIBERTE) 04 July 1972, col. 3, lines 3-6, col. 5, lines 12-45</td>
<td>4, 5, 8, 16-23</td>
</tr>
<tr>
<td>Y</td>
<td>US 4,828,769 A (MAUS et al) 09 May 1989, col. 7, line 51 through col. 8, line 57</td>
<td>3, 6, 7, 9-12, 18-23</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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"Z" document member of the same patent family

Date of the actual completion of the international search
30 MAY 2002

Date of mailing of the international search report
14 JUN 2002

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