



(11) Publication number : **0 484 036 A3**

(12)

EUROPEAN PATENT APPLICATION

(21) Application number : **91309762.2**

(51) Int. Cl.⁵ : **B24B 13/005**

(22) Date of filing : **22.10.91**

(30) Priority : **29.10.90 US 604097**

(43) Date of publication of application :
06.05.92 Bulletin 92/19

(84) Designated Contracting States :
DE ES FR GB IT

(88) Date of deferred publication of search report :
05.08.92 Bulletin 92/32

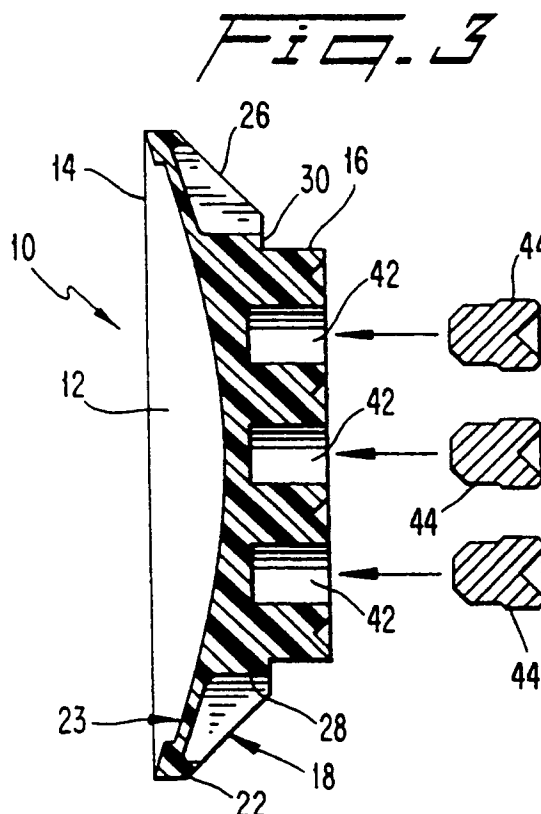
(71) Applicant : **PILKINGTON VISIONCARE INC.**
2429 Sand Hill Road
Menlo Park, California 94025 (US)

(72) Inventor : **Rotenberg, Don H.**
4507 E. 108th Street, South
Tulsa, Oklahoma 74137 (US)
Inventor : **Hyslop, Ronald T.**
11302 S. Erie Avenue
Tulsa, Oklahoma 74137 (US)
Inventor : **Coleman, Milton**
2415 Hays Street
Muskogee, Oklahoma 74402 (US)

(74) Representative : **Jenkins, Peter David et al**
PAGE, WHITE & FARRER 54 Doughty Street
London WC1N 2LS (GB)

(54) **Reinforced thermoplastic components for use in the manufacturing of ophthalmic lenses and methods of making such components.**

(57) Components for use in the formation of a finished or partially finished ophthalmic lens, such as lens blocks (10) and prism rings and edging blocks and adapters for example, are formed from a carbon fiber reinforced crystalline thermoplastic containing at least 30% by weight carbon fiber based on the total weight of the component. The reinforced thermoplastic has a minimum tensile strength of at least about 20,000 psi, a minimum flexural strength of 2×10^4 psi, a minimum flexural modulus of 2×10^6 psi, and a specific gravity of less than 1.60. The lens block (10) includes a unique arrangement of ribs (18) to strengthen the block and increase its heat transfer properties. Metal finishing centers (44) are inserted into the block and are ultrasonically vibrated or heat staked in order to cause the plastic material to flow around and into serrations formed on the finishing centers.





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 91 30 9762

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y A	DE-A-3 640 678 (K. KASSNER) * page 2, line 41 - page 4, line 55; claims 1-11; figures 1-3 * ---	1, 5 2-4, 7	B24B13/005
Y	EP-A-0 169 931 (W. LOH WETZLAR OPTIKMASCHINEN GMBH & CO. KG) * page 5, line 1 - line 6; figure 1 * ---	1, 5	
A	US-A-3 140 568 (G. A. BEASLEY) * figure 1 * ---	1	
D, A, P	US-A-5 005 633 (H. H. MATHEWS ET AL) * figure 1 * ---	1	
D, A	US-A-3 704 558 (G. M. J. SAROFEEEN) * figure 3 * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B24B
Place of search BERLIN		Date of completion of the search 18 MAY 1992	Examiner WUNDERLICH J.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (P0401)