

Title (en)

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

Title (de)

Verstärkte Thermoplastik-Bauteile für die Herstellung von Brillengläsern und Verfahren zur Herstellung solcher Bauteile.

Title (fr)

Éléments thermoplastiques renforcés pour l'utilisation dans la manufacture de lentilles ophtalmiques et méthodes pour fabriquer les éléments.

Publication

**EP 0484036 A2 19920506 (EN)**

Application

**EP 91309762 A 19911022**

Priority

US 60409790 A 19901029

Abstract (en)

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  $2 \times 10^4$  psi, a minimum flexural modulus of  $2 \times 10^6$  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. <IMAGE>

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