

Summary – Tensile Tests

To sum up, one can say that according to the tensile test the glass gets damaged at about 250 N, by the metallic components.

During the tensile test, the bonding of the glasses with Lensbond – technology and metallic components in the earpieces, showed resistance at least as great as the constructional material strength it requires.

The bonding of the glasses with the newest Lensbond – technology (no metallic components in the earpieces) withstood a tensile force of ca. 108N. In this case, the bonding was sheared off but about 20% of the adherend could withstand the applied force (at this point the glass broke).

Resume

The subsequent mechanical treatment of glasses causes stress in the material which can even be intensified if the earpiece and the glass are bolted together. The form of the bore is also relevant concerning the stress in the glass.

Furthermore, the stress in the glass reduces the resistance against applied mechanical force.

Another consequence could be aberrations caused by the stress in the glass which should be avoided generally.

The Lensbond-technology shows a good stability regarding bonding.

The particular strength of Lensbond – technology is the finishing of the glasses without stress.