WHAT IS CLAIMED IS

1. A glass substrate for a magnetic recording medium, comprising:

in a case in which both end parts of the glass substrate along diametrically opposite directions are supported from a lower surface side of the glass substrate and a load is applied to a central upper surface of the glass substrate for 48 hours, a pseudoelastic deformation quantity A indicated by an absolute value of a difference between a flatness after 5 hours elapses from a time when the applied load is removed and a flatness before the load is applied to the glass substrate, is 2.0 μm or less,

wherein glass forming the glass substrate includes

an Al_2O_3-content of 5 mol% or more,

a B_2O_3-content of 0.1 mol% or more and less than 2 mol%, and

one or less kind of alkali metal oxide with a content of 0 mol% or more and 10 mol% or less, or two or more kinds of alkali metal oxides with a content of more than 0 mol% and 10 mol% or less.

2. The glass substrate as claimed in claim 1, wherein

in the case in which both the end parts of the glass substrate along the diametrically opposite directions are supported from the lower surface side of the glass substrate and the load is applied to the central upper surface of the glass substrate for 48 hours, a pseudoelastic deformation quantity B indicated by an absolute value of a difference between the flatness after 5 hours elapses from the time when the applied load is removed and a flatness after 48 hours elapses from the time when the applied load is removed, is 1.5 μm or less.

3. The glass substrate as claimed in claim 1 or 2, wherein

in the case in which both the end parts of the glass substrate along the diametrically opposite directions are supported from the lower surface side of the glass substrate and the load is applied to the central upper surface of the glass substrate for 48 hours, a pseudoelastic deformation quantity C indicated by the flatness after 5 hours elapses from the time when the applied load is removed, is 2.5 μm or less.

4. The glass substrate as claimed in any of claims 1 to 3, wherein the glass substrate is for a magnetic recording medium employing a heat-assisted magnetic recording system.

5. The glass substrate as claimed in any of claims 1 to 4, wherein the glass forming the glass substrate includes an Al_2O_3-content of 5 mol% or more and 20 mol% or less.

6. The glass substrate as claimed in any of claims 1 to 5, wherein the glass forming the glass substrate includes

a SiO_2-content of 66 mol% or more and 70 mol% or less, and

substantially does not include an alkali metal oxide.

7. A magnetic recording medium comprising:

the glass substrate as claimed in any of claims 1 to 6; and

a magnetic layer for a heat-assisted magnetic recording system, arranged above the glass substrate.