CLAIMS

What is claimed is:

1. A toothbrush comprising:

a head section which is disposed at a front end side and in which a bristle bundle is implanted in a bristle implanting surface;

a neck section extending from a rear end side of the head section; and

a handle section extending from a rear end side of the neck section,

wherein a material of the head section, the neck section, and the handle section is a resin having a flexural modulus (JIS7171) of 1000 MPa or more and 2200 MPa or less,

wherein the head section has a thickness of 2.0 to 4.0 mm,

wherein the head section has a length of 10 to 33 mm,

wherein the neck section has a length of 30 to 70 mm,

wherein the neck section is formed so that a width thereof in a direction that is parallel to that of the bristle implanting surface and orthogonal to a length direction of the handle section is constant or gradually increases toward the rear end side from a position thereof at which the width has a minimum value,

wherein, when the width of the neck section is W mm, and a thickness of the neck section in the direction orthogonal to the bristle implanting surface is D mm,

the position of the minimum value is set as an origin when the width of the neck section gradually increases toward the rear end side from the position of the minimum value, the position of the minimum value on the front-most end side is set as an origin when the width of the neck section is constant toward the rear end side from the position of the minimum value, a value obtained by D/W at a position separated by 10 mm toward the rear end side in parallel with the bristle implanting surface is 0.7 or more and 1.5 or less, and a value obtained by D/W at a position separated by 30 mm toward the rear end side in

parallel with the bristle implanting surface is larger than 1.0 and 1.3 or less,

wherein a minimum width W of the neck section is 4.5 mm or less,

wherein a deflection coefficient M (mm^4)=$W \times D^3$ at the position separated by 10 mm toward the rear end side is 165 mm^4 or more and 525 mm^4 or less,

wherein a deflection coefficient M (mm^4)=$W \times D^3$ at the position separated by 30 mm toward the rear end side is 600 mm^4 or more and 1500 mm^4 or less,

wherein, when a position of the origin is used as a reference, a change rate of the deflection coefficient at a position separated by 10 mm toward the rear end side from a position of the reference is 1.0 or more and 1.3 or less, and

wherein, when a position separated by 20 mm toward the rear end side from the position of the origin is used as a reference, a change rate of the deflection coefficient at a position separated by 30 mm toward the rear end side from the position of the origin is 1.7 or more and 3.0 or less.

2. The toothbrush according to claim 1,

wherein a value obtained by D/W at a position separated by 30 mm toward the rear end side in parallel with the bristle implanting surface from the position of the origin is 1.05 or more and 1.3 or less.

3. The toothbrush according to claim 1 or 2,

wherein a difference between a value obtained by D/W at the position of the origin and a value obtained by D/W at a position separated by 30 mm toward the rear end side from the position is 0.1 or more and 0.2 or less.

4. The toothbrush according to any one of claims 1 to 3,

wherein a difference between the value obtained by D/W at the position of the

origin at which the width has a minimum value and a value obtained by D/W at a position separated by 20 mm toward the rear end side from the position is 0.07 or less.