Claims

1. Brush (10) for a sonic toothbrush with longitudinal axis vibration comprising an elongated base body having

   a) a frustoconical base portion (11) having a drive adapter (14) for rotation-fixed coupling to a sonic tooth brush drive with longitudinal axis vibration, said drive adapter (14) defining a geometric base portion longitudinal axis (x) of the brush,

   b) a head portion (13) with a head portion alignment axis (21) and a bristle support in which a plurality of bristles are anchored

   c) and having a neck portion (12) of tapered cross-section compared to the base portion, connecting the base portion (11) and the head portion (13),

   characterized in that

   d) the base portion forms a kink angle such that a geometric base portion longitudinal axis (20) and a geometric head portion alignment axis (21) include an angle γ in the range of 5° to 12°, and

   e) a geometric kink position (22) in the base portion has a distance (K) to an end face of the base portion (11) of at least 50% of a total length (L) of the base body.

2. Brush (10) according to claim 1, characterized in that the distance (K) of the geometric kink position (22) to the end surface of the base portion (11) is at least 60% of the total length (L) of the base body.

3. Brush (10) according to claim 1 or 2, characterized in that the distance of the geometric kink position (22) to the end face of the base portion (11) is at most 75% of the total length (L) of the base body.

4. Brush (10) according to any one of claims 1 to 3, characterized in that the head portion (13) is plate-shaped and the neck portion (12) is rod-shaped, wherein preferably

a) the head portion (13) is at least about twice as wide as the neck portion (12), and/or

b) the head portion (13) is at most about 1.5 times as long as the neck portion (12) and/or

c) the head portion (13) is approximately the same thickness as the neck portion in a cross-section spanned by the longitudinal axis (x) and the head alignment axis.

5. Brush (10) according to any one of claims 1 to 4, characterized in that the head portion (13) has a mass which is greater than a mass of the neck portion (12), in particular the head portion (13) has a mass which is at least 30%, particularly preferably at least 50%, greater than the mass of the neck portion (12).

6. Brush (10) according to any one of claims 1 to 5, characterized in that the base portion (11) is approximately the same length as the head portion (13).

7. Brush (10) according to any one of claims 1 to 6, characterized in that the neck portion (12) has a transverse dimension that is not more than a quarter of a length of the neck portion (12).

8. Brush (10) according to any one of claims 1 to 7, characterized in that the base body comprises a load-bearing material having a Young's modulus of not more than 6000 MPa and not less than 2000 Mpa.

9. Brush (10) according to claim 8, characterized in that the modulus of elasticity is at least 2500 Mpa, in particular at least 3000 Mpa.

10. Brush (10) according to claim 8, characterized in that the base body consists essentially of one piece of one material.

11. Brush (10) according to one of claims 8 or 9, characterized in that the base body is essentially formed by two or by three parts of material which are joined by material bonding.

12. Brush (10) according to any one of claims 1 to 10, characterized in that the head portion (13) has a deflection of 10% - 20% with respect to a length of the brush (10).

13. Brush (10) according to any one of claims 1 to 11, characterized in that the bristles extend substantially perpendicularly away from the head portion alignment axis (21) of the brush (10).

14. Brush (10) according to any one of the preceding claims 1 to 13, characterized in that the geometric base portion longitudinal axis (20) and the geometric head portion alignment axis (21) include an angle γ in the range of 7° to 10°.

15. Brush (10) according to any one of claims 1 to 11, characterized in that the neck portion (12) is cross-sectionally tapered in comparison to the head portion.

16. Sonic toothbrush with longitudinal axis vibration, comprising

    a) a brush (10) according to any one of claims 1 to 9; and

    b) a hand apparatus having a brush coupling for releasably attaching the brush (10) to the hand apparatus and having a drive (16 in the hand apparatus) which generates a longitudinal axis vibration at the brush coupling.

17. Sonic toothbrush according to claim 16, characterized in that the drive (16) is adapted to generate a longitudinal axis vibration frequency in the range of 150 Hz to 400 Hz.

18. Sonic toothbrush according to claim 16 or 17, characterized in that the drive (16) is designed to generate a longitudinal axis vibration with an amplitude of less than 3°, in particular from 1° to 3°.