CLAIMS:

1. Abrasive silica particles suitable for use in a dentifrice composition, the particles comprising:

particles of a first abrasive silica in an amount of at least 90 wt% relative to the total weight of the abrasive silica particles; and

particles of a second abrasive silica in an amount of up to ~~10~~7 wt% relative to the total weight of the abrasive silica particles;

wherein the weight median particle diameter (d_{50}) of the particles of the second abrasive silica is less than the weight median particle diameter (d_{50}) of the particles of the first abrasive silica and from 15% to 70% of the d_{50} value of the particles of the first abrasive silica, wherein the Relative Dentine Abrasion (RDA) value of the second silica particles is greater than the RDA value of the first silica particles.

2. The abrasive silica particles according to claim 1, wherein the oil absorption value of the particles of second abrasive silica is less than the oil absorption value of the particles of the first abrasive silica, and is from 30% to 70% of the oil absorption value of the particles of the first abrasive silica.

3. The abrasive silica particles according to claim 1 or claim 2, wherein the weight median particle diameter (d_{50}) of the second silica particles is from 15% to 65% of the d_{50} of the first silica particles; optionally from 15% to 55% of the d_{50} value of the first silica particles.

~~4. The abrasive silica particles according to any one of claims 1 to 3, wherein the Relative Dentine Abrasion (RDA) value of the second silica particles is greater than the RDA value of the first silica particles.~~

~~5~~4. The abrasive silica particles according to any one of claims 1 to ~~4~~3, wherein the first silica particles have a Relative Dentine Abrasion (RDA) value that is from 10% to 70% of the RDA value of the second silica particles, optionally from 10 to 50%, such as from 15 to 40%.

~~6~~5. The abrasive silica particles according to any one of claims 1 to ~~5~~4, wherein the first silica particles have an RDA value of from 30 to 110.

~~7~~6. The abrasive silica particles according to any one of claims 1 to ~~6~~5, wherein the second silica particles have an RDA value of from 120 to 300.

~~8~~7. The abrasive silica particles according to any one of claims 1 to ~~7~~ 6 wherein the second silica particles are present in an amount of from 1 to ~~10~~7 wt% relative to the total weight of the abrasive silica particles, optionally from 2 to 7 wt% relative to the total weight of the abrasive silica particles.

~~9~~8. The abrasive silica particles according to any one of claims 1 to ~~8~~7, wherein the first abrasive silica is an amorphous precipitated silica and / or the second abrasive silica is an amorphous precipitated silica.

~~10~~9. The abrasive silica particles according to any one of claims 1 to ~~9~~8, wherein the d_{50} of the first silica particles is 15 µm or less, optionally from 5 µm to 15 µm, optionally still from 7 to 14 µm, further optionally still from 8 to 13 µm.

~~11~~10. The abrasive silica particles according to any one of claims 1 to ~~10~~9, wherein the first silica particles have a d_{90} value, wherein 90% by weight of particles comprised in the first silica particles has a diameter less than the d_{90} value, of 35 µm or less, optionally from 25 µm to 35 µm.

~~12~~11. The abrasive silica particles according to any one of claims 1 to ~~11~~10, wherein the d_{50} of the second silica particles is 9 µm or less, optionally from 1 µm to 9 µm, optionally still from 2 µm to 8 µm, further optionally still from 2 µm to 6 µm.

~~13~~12. The abrasive silica particles according to any one of claims 1 to ~~12~~11, wherein the second silica particles have a d_{90} value, wherein 90% by weight of particles comprised in the second silica particles has a diameter less than the d_{90} value, of 25 µm or less, optionally 20 µm or less, optionally still from 3 µm to 25 µm, further optionally still from 3 µm to 20 µm.

~~14. Abrasive silica particles according to claim 13:~~

~~wherein the first silica particles have a d_{50} value of from 5 µm to 15 µm, and a d_{90} value, wherein 90% by weight of particles comprised in the first silica has a diameter less than the d_{90} value, of from 25 µm to 35 µm; and~~

~~wherein the second silica particles have a d_{50} value of from 2 µm to 6 µm, and a d_{90} value of from 3 µm to 25 µm.~~

~~15~~13. The abrasive silica particles according to any one of claims 1 to ~~14~~12, wherein the second silica particles have an oil absorption value of 120g/100g or less, optionally 85 g/100g or less.

~~16~~14. The abrasive silica particles according to any one of claims 1 to ~~15~~13 wherein the first abrasive silica particles have an oil absorption value of 150g / 100g or less.

~~17. The abrasive silica particles according to any one of claims 1 to 16, wherein the first silica particles have a Plastic Abrasion Value (PAV) of from 2 to 8, and wherein the PAV of the first silica particles is less than the PAV of the second silica particles.~~

~~18. The abrasive silica particles according to any one of claims 1 to 17, wherein the second silica particles have a Plastic Abrasion Value (PAV) of from 7 to 50, and wherein the PAV of the second silica particles is greater than the PAV of the first silica particles.~~

~~19~~15. The abrasive silica particles according to any one of claims 1 to ~~18~~14, wherein the abrasive particles further comprise particles of a third abrasive silica, wherein the weight median particle diameter (d_{50}) of the particles of the third silica is less than the d_{50} of the first silica particles and from 15% to 70% of the d_{50} of the first silica particles, and the combined weight of the particles of the second and third silicas does not exceed 10 wt% relative to the total weight of the abrasive silica particles.

~~20. The abrasive silica particles according to any one of claims 1 to 19 consisting essentially of the first silica particles and the second silica particles, and optionally the third silica particles according to claim 19; optionally consisting of the first silica particles and the second silica particles and optionally the third silica particles according to claim 19.~~

~~21. The abrasive silica particles according to any one of claims 1 to 20 wherein the oil absorption value of the abrasive silica particles is from of 150 g/100g or less.~~

~~22. The abrasive silica particles according to any one of claims 1 to 21 wherein the abrasive silica particles have an RDA of 150 or less, optionally an RDA of 120 or less,~~

~~optionally an RDA of 100 or less; and / or wherein the abrasive silica particles have an RDA of 30 or more.~~

~~23~~16. The abrasive silica particles according to any one of claims 1 to ~~22~~15 wherein the abrasive silica particles have an FT_{100} cleaning value of from 40 to 100, optionally from 50 to 95, optionally still from 60 to 95.

~~24~~17. A composition for use in a dentifrice, the composition comprising the abrasive silica particles according to any one of claims 1 to ~~23~~16, and optionally a carrier.

~~25. The composition according to claim 24, further comprising silica particles not according to any of claims 1 to 23, optionally wherein the silica particles are a thickener.~~

~~26. The composition according to claim 24 or 25, further comprising one or more surfactants.~~

~~27~~18. A dentifrice comprising the abrasive silica particles according to any one of claims 1 to ~~23~~16; or comprising a composition according to ~~any one of~~ claim~~s 24 to 26~~17.

~~28. The dentifrice according to claim 27, wherein the dentifrice is a paste.~~

~~29. The dentifrice according to claim 27 or claim 28 comprising from 0.1 - 50 wt% of abrasive silica particles according to any one of claims 1 to 23 or of a composition according to any one of claims 24 to 26; optionally comprising from 1 – 30 wt% of abrasive silica particles according to any one of claims 1 to 23 or of a composition according to any one of claims 24 to 26.~~

~~30~~19. A method of preparing abrasive silica particles for use in a dentifrice composition, the method comprising:

combining particles of a first abrasive silica and particles of a second abrasive silica to provide the abrasive silica particles,

wherein the particles of the first abrasive silica are present in an amount of at least 90 wt% relative to the total weight of the abrasive silica particles, and the particles of the second abrasive silica are present in an amount of up to ~~10~~7 wt% relative to the total weight of the abrasive silica particles; and

wherein the weight median particle diameter (d_{50}) of the second abrasive silica is less than the first abrasive silica, and is from 15% to 70% of the d_{50} value of the first silica particles; and

wherein the Relative Dentine Abrasion (RDA) value of the second silica particles is greater than the RDA value of the first silica particles.

~~31~~20. A method according to claim ~~30~~19, wherein the combining step comprises combining particles of the first abrasive silica and the second abrasive silica and also particles of a third abrasive silica, to provide the abrasive silica particles,

wherein the weight median particle diameter d_{50} of the particles of the third abrasive silica is less than the first abrasive silica particles and from 15% to 70% of the weight median particle diameter d_{50} of the first abrasive silica particles, and the combined weight of the particles of the second and third abrasive silicas does not exceed 10 wt% relative to the total weight of the abrasive silica particles.

~~32. The method according to claim 30 or 31, wherein the combining comprises mixing the abrasive silica particles, optionally wherein the mixing provides a homogeneous mixture of the abrasive silica particles.~~

~~33. The method according to any one of claims 30 to 32, wherein the method is a method of preparing the abrasive silica particles that are as defined according to any one of claims 1 to 23.~~

~~34. Abrasive silica particles prepared according to the method of any one of claims 30 to 33.~~