Claims

1. A brake pad (18), the brake pad (18) comprising a lining (20) and a lining carrier (24), the lining (20) being made of friction material and having at least one particle collection groove (30, 32, 38, 40, 42), the lining carrier (24) being connected to a face (22B) of the lining (20), called the mounting face, wherein a space (29) is provided between the lining carrier (24) and the mounting face (22B) of the lining (20), wherein a sealing chamber (50) is arranged in the space (29), the sealing chamber (50) comprising a suction duct (52) intended to be fluidly connected to a negative-pressure source, wherein the at least one particle collection groove (30, 32, 38, 40, 42) comprises a suction hole (44) that leads into the sealing chamber (50) and is fluidly connected to the suction duct.

2. Brake pad (18) according to claim 1, wherein the sealing chamber (50) is welded to the lining carrier (24).

3. Brake pad (18) according to claim 1, wherein the sealing chamber (50) is welded to the lining (20).

4. Brake pad (18) according to claim 1, further comprising a screw (66) or a shim which connects the sealing chamber (50) to the lining carrier (24) and/or to the lining (20).

5. Brake pad (18) according to claim 1, wherein the sealing chamber (50) is press-fitted into the space (29) provided between the lining carrier (24) and the mounting face (22B) of the lining (24).

6. Brake pad (18) according to claim 1, wherein the sealing chamber comprises a nut (84) welded to the lining carrier (24) and/or to the lining (20), the nut comprising an inner annular face provided with an internal threading that is complementary to an external threading on an outer surface of the suction duct (52).

7. Brake pad (18) according to claim 1, wherein the sealing chamber (50) includes a filler block (60) comprising a cavity (62) fluidly connecting the suction hole (44) of the at least one collection groove (30, 32, 38, 40, 42) to the suction duct (52).

8. Brake pad (18) according to claim 7, wherein the filler block (60) is made of silicone.

9. Brake pad (18) according to claim 7, wherein the filler block (60) is made in the friction material of the lining (20).

10. Brake pad (18) according to claim 1, wherein the sealing chamber (50) is made as a single unit with the lining carrier (24).

11. A method for assembling a brake pad (18), the brake pad (18) comprising a lining (20) and a lining carrier (24), the lining (20) being made of friction material and having at least one particle collection groove (30, 32, 38, 40, 42), the lining carrier (24) being connected to a face (22B) of the lining (20), called the mounting face, wherein a space (29) is provided between the lining carrier (24) and the mounting face (22B) of the lining (20), wherein a sealing chamber (50) is arranged in the space (29), the sealing chamber (50) comprising a suction duct (52) intended to be fluidly connected to a negative-pressure source, wherein the at least one particle collection groove (30, 32, 38, 40, 42)

comprises a suction hole (44) that leads into the sealing chamber (50) and is fluidly connected to the suction duct, the method comprising:

- supplying the lining (20), the lining carrier (24), and the sealing chamber (50);
- connecting the lining carrier (24) to the mounting face (22B) of the lining (20);
- arranging the sealing chamber (50) in the space (29) provided between the lining carrier (24) and the mounting face (22B) of the lining (20), such that the suction hole (44) of the at least one particle collection groove (30, 32, 38, 40, 42) leads into the sealing chamber (50) and is fluidly connected to the suction duct (52).

12. Method according to claim 11, wherein the sealing chamber (50) is arranged in the space (29) by at least one of the following techniques:

- welding the sealing chamber (50) to the lining carrier (24) and/or to the lining (20); and/or
- attaching the sealing chamber (50) to the lining carrier (24) and/or to the lining (20) via a connecting means (66); and/or
- shrink-fitting the sealing chamber (50) between the lining carrier (24) and the lining (20); and/or
- overmolding the lining (20) onto an assembly comprising the lining carrier (24) and the suction duct (52).