Claims

1. Grinding disc (3), being rotatably driveable around an axis of rotation (D) and having a front side (4) as well as a rear side (5) facing away from the front side (4), wherein the grinding disc (3) further comprises the following:

   a multi-layered circular grinding blank packet (2) with a plurality of circular grinding blanks (6), which are flatly stacked over each other along the axis of rotation (D) and which each comprise a central through opening (7), wherein the central through openings (7) form together a recess (10) of the circular grinding blank packet (2),

   characterised in

   that the grinding disc (3) has a backing plate (1), which is arranged in the recess (10), and

   that the circular grinding blanks (6) each are fixed individually to the backing plate (1).

2. Grinding disc (3) according to claim 1,

   characterised in

   that the central through openings (7) of at least a subset of the circular grinding blanks (6) of the circular grinding blank packet (2) are formed differently-sized.

3. Grinding disc (3) according to any one of the preceding claims,

   characterised in

   that, starting from the front side (4) and extending to the rear side (5) the central through openings (7) of the circular grinding blanks (6) increase in size

at least along a portion of the circular grinding blank packet (2) extending parallel to the axis of rotation (D).

4. Grinding disc (3) according to any one of the preceding claims,

characterised in

that, starting from the rear side (5) and extending to the front side (4) the central through openings (7) of the circular grinding blanks (6) increase in size at least along a portion of the circular grinding blank packet (2) extending parallel to the axis of rotation (D).

5. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the individual circular grinding blanks (6) each are fixed with a central annular portion (11) to an attachment face (12) of the backing plate (1), said attachment face (12) being arranged parallel to the front side (4).

6. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the backing plate (1) is poured into the recess (10).

7. Grinding disc (3) according to claim 6,

characterised in

that a threaded element (15), having an internal thread (16) for attaching the grinding disc (3) to a drive machine, is arranged in the backing plate (1), especially, is embedded into the backing plate (1).

8. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the through openings (7) of the circular grinding blanks (6) comprise a cross-section deviating from a circle, especially comprise a polygonal cross-section.

9. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the circular grinding blanks (6) each comprise an outer circumferential face (13), wherein the outer circumferential face (13) of all circular grinding blanks (6) are identical in shape, size and alignment.

10. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the circular grinding blanks (6) each comprise an outer circumferential face (13), wherein the outer circumferential faces (13) when seen in the cross-section of the grinding disc (3), are each arranged at an angle (α) between 5º and 85º, especially between 20º and 40º to the axis of rotation (D).

11. Grinding disc (3) according to claim 9 or 10,

characterised in

that the outer circumferential faces (13) comprise radial recesses (19).

12. Grinding disc (3) according to any one of the preceding claims,

characterised in

that the grinding disc (3) comprises a support layer (21) on the rear side (5).

13. Grinding disc (3) according to any one of the preceding claims,

characterised in

that at least a subset of the circular grinding blanks (6) each comprise a grinding layer on a side facing towards the front side (4) of the grinding disc (3).

14. Grinding disc (3) according to any one of the preceding claims,

characterised in

that at least a subset of the circular grinding blanks (6) each comprise a grinding layer on a side facing towards the rear side (5) of the grinding disc (3).

15. Grinding disc (3) according to any one of the preceding claims,

characterised in

that at least one of the circular grinding blanks (6) comprises plurality of circular grinding blank segments, being distributed in circumferential direction and abutting each other in butt joints.