Claims

1. A roughing disc for machining material surfaces, comprising

   a disc-shaped main body (3) having a tool side (13), which can face a tool, and a workpiece side (12), which can face a workpiece, the main body (3) comprising a central opening (2) through which an axis of rotation (5) passes and which serves for direct or indirect attachment of a drive shaft of the tool, a disc-shaped backing layer (6) disposed on the tool side (13), and at least one abrasive layer (8a, 8b), wherein the abrasive layer (8a, 8b) comprises abrasive grains as well as polyaluminium fluoride and/or cryolite and/or pyrite as abrasive additive, wherein the backing layer (6) is made of a material mixture that is free of the abrasive additives and that comprises at least one mineral additive, which is basalt and/or quartz sand and/or aluminum.

2. The roughing disc according to claim 1, wherein the mineral additive has a Mohs hardness of at least 2.

3. The roughing disc according to claim 1 or claim 2, wherein the mineral additive has a grain size of 30 to 1000 µm.

4. The roughing disc according to any one of claims 1 to 3, wherein the grain of the mineral additive is covered in phenolic resin systems comprising a resol/novolak mixture.

5. The roughing disc according to claim 4, wherein the resol has a viscosity of 1000 to 5000 mPa·s.

6. The roughing disc according to claim 4, wherein the novolak has a hexamethylenetetramine content of at least 9 vol% and a flow length of 15 to 35 mm.

7. The roughing disc according to claim 4, wherein defined amounts of other additives are additionally added to the novolak.

8. The roughing disc according to any one of claims 1 to 4, wherein a separating layer,

which is a glass fabric layer (10), is provided between adjacent layers.

9. The roughing disc according to claim 1, wherein the mineral additive has a Mohs hardness between 7 and 9.

10. The roughing disc according to claim 3, wherein the mineral additive has a grain size of 200 to 500 µm.

11. The roughing disc according to claim 5, wherein the resol has a viscosity of 1200 to 3500 mPa·s.

12. The roughing disc according to claim 4, wherein the novolak has a hexamethylenetetramine content of 12 to 16 vol% and a flow length of 17 to 26 mm.

13. The roughing disc according to claim 4, wherein aggregates of less than 20 vol% are additionally added to the novolak.