Claims:

1. A method for production of a projectile, having a subcaliber projectile core (2) and a sabot (3) as a guide sabot which has a drive element (4), which is in the form of a plate and acts on the projectile core (2) at the rear end, and adjacent to the drive element (4), **wherein**

- the essentially cylindrical guide sabot (3) is composed of a plastic or material which is similar to a plastic,
- the drive element (4) and the projectile core (2) are detachably connected to one another, and are inserted as insert into an injection-molding tool, which produces the contour of the guide sabot (3), and are insert molded.

2. The method as claimed in claim 1, **characterized** in that weak points (8, 14, 16) are also injection molded.

3. The method as claimed in claim 1 or 2, **characterized** in that guide sabot segments (9) are injection molded at the same time by means of a number of gates corresponding to the segments, such that the material which flows into the mold areas which form the segments meets at the weak points (16).

4. A projectile having a subcaliber projectile core (2) and a sabot (3) as a guide sabot which has a drive element (4), which is in the form of a plate and acts on the projectile core (2) at the rear end, and an essentially cylindrical guide sabot (3) which is adjacent to the drive element (4) and is composed of plastic, wherein the drive element (4) is firmly incorporated in the guide sabot (3) at the rear end.

5. The projectile as claimed in claim 4, **characterized** in that

- the guide sabot (3) has an outer wall (6) in which at least two weak points (8) are provided which are arranged distributed uniformly over the circumference and extend in the axial direction, and a rear wall (12), which is adjacent to the drive element (4) runs, radially and is likewise provided with weak points (16), which are adjacent to the weak points (8) in the outer wall (6).

6. The projectile as claimed in claim 4 or 5, **characterized** in that the projectile core (2) is connected via at least two spacing elements (10), which are in the form of longitudinal ribs, to the inner surface of the outer wall (6), wherein one longitudinal rib (10) is in each case associated with a guide sabot segment (9) which is defined by adjacent weak points (8) which extend axially from the rear wall (12) into the nose area of the guide sabot (5).

7. The projectile as claimed in one of claims 4 to 6, **characterized** in that the guide sabot (3) is formed integrally and at least partially surrounds the drive element (4) on the outside.

8. The projectile as claimed in one of claims 4 to 7, **characterized** in that the longitudinal ribs (10) have recesses (17), in the form of pockets, at the front end.

9. The projectile as claimed in one of claims 1 to 3, **characterized** in that the longitudinal ribs (10) each have a conically tapering profile which extends forward from the rear wall (12) of the guide sabot (5).

10. The projectile as claimed in one of claims 1 to 5, **characterized** in that the guide sabot (3) has a sleeve (11) which surrounds the projectile core (2) and is in the form of a web, to which the longitudinal ribs (10) are connected on the projectile side, and in that the sleeve (11) which is in the form of a web is also provided with weak points (16) which extend in the axial direction and are adjacent to the weak points (16) in the rear wall (12).

11. The projectile as claimed in claim 6, **characterized** in that the weak points (16) extend to the surface of the projectile core (2).

12. The projectile as claimed in one of claims 1 to 8, **characterized** in that the guide sabot (3) has four weak points (8) which are arranged distributed uniformly over the circumference of the outer wall (6) and extend in the axial direction, wherein the weak points (8) are located rotated through 45° with respect to the longitudinal ribs (10).

Claims:

1. A projectile comprising:
(a) a subcaliber projectile core; and
(b) a sabot provided as a guide sabot that has a drive element, wherein the drive element is in the form of a plate and is disposed to act on the projectile core at a rear end of the projectile core, and the guide sabot is an essentially cylindrical guide sabot disposed adjacent to the drive element, and the guide sabot comprises plastic that is a fiber-reinforced plastic, and the drive element is firmly incorporated in the guide sabot at a rear end of the projectile so that the guide sabot is formed integrally with the drive element,
wherein the guide sabot has an outer wall in which at least two first weak points are provided, wherein the at least two first weak points are arranged and distributed uniformly over a circumference of the outer wall and extend in an axial direction, and the guide sabot has a rear wall that is adjacent to the drive element, and the rear wall extends radially with respect to a longitudinal axis of the projectile and the rear wall is likewise provided with second weak points, wherein the second weak points of the rear wall are adjacent to the first weak points in the outer wall.

2. The projectile as claimed in claim 1, wherein the projectile core is connected to an inner surface of the outer wall of the guide sabot via at least two spacing elements that are in the form of longitudinal ribs, wherein each longitudinal rib is associated with a guide sabot segment, wherein each guide sabot segment is defined by adjacent first weak points formed in the outer wall and that extend axially from the rear wall of the guide sabot into a nose area of the guide sabot.

3. The projectile as claimed in claim 2, wherein the longitudinal ribs have recesses, in the form of pockets, located at a front end of the longitudinal ribs.

4. The projectile as claimed in claim 2, wherein the longitudinal ribs each have a conically tapering profile that extends forward from the rear wall of the guide sabot.

5. The projectile as claimed in claim 2, wherein the first weak points formed in the outer wall of the guide sabot extend to a surface of the projectile core.

6. The projectile as claimed in claim 2, wherein the guide sabot has four first weak points formed in the outer wall of the guide sabot, wherein the four first weak points are arranged and distributed uniformly over an inner circumference of the outer wall and extend in the axial direction, wherein the four first weak points formed in the outer wall of the guide sabot are located so as to be rotated through 45° with respect to the longitudinal ribs.

7. The projectile as claimed in claim 1, wherein the guide sabot at least partially surrounds the drive element on an outside surface of the drive element.

8. The projectile as claimed in claim 7, wherein the projectile core is connected to an inner surface of the outer wall of the guide sabot via at least two spacing elements that are in the form of longitudinal ribs, wherein each longitudinal rib is associated with a guide sabot segment, wherein each guide sabot segment is defined by adjacent first weak points formed in the outer wall and that extend axially from the rear wall of the guide sabot into a nose area of the guide sabot.

9. The projectile as claimed in claim 1, wherein the guide sabot has a sleeve that surrounds the projectile core and is in the form of a web, wherein longitudinal ribs are connected on a projectile side to the web, and the sleeve is also provided with third weak points that extend in an axial direction with respect to a longitudinal axis of the projectile core, and the third weak points of the sleeve are adjacent to second weak points disposed in a rear wall of the guide sabot.

10. The projectile as claimed in claim 1, wherein the fiber-reinforced plastic is a glass-fiber-reinforced polyamide plastic or a carbon-fiber-reinforced polyamide plastic.

11. The projectile as claimed in claim 1, wherein the guide sabot includes the first weak points, the second weak points and third weak points formed therein, wherein the first weak points are formed in an outer wall of the guide sabot, and the second weak points are formed in a wall of a sleeve of the guide sabot that surrounds the projectile core, and the third weak points are formed in a rear wall of the guide sabot, wherein at least one first weak point, and at least one second weak point, and at least one third weak point are formed so as to be radially aligned along a single radial line extending from a longitudinal axis of the projectile core, and wherein weld lines are formed in material of the guide sabot at the second weak points formed in the rear wall of the guide sabot, and the weld lines weaken the material at the second weak points formed in the rear wall of the guide sabot.

12. A projectile comprising:

(a) a sub-caliber projectile core;

(b) a sabot serving as guide sabot; and

(c) a plate-shaped drive element acting on a rear side of the projectile core, wherein, adjacent to the drive element, the guide sabot is disposed as an essentially cylindrical guide sabot made of plastic material, wherein the drive element is in the rear of the projectile firmly integrated in the guide sabot, and the guide sabot has an outer wall in which is provided at least two first predetermined weak points that are arranged uniformly distributed over a circumference of the outer wall, extending in an axial direction, and a radially extending rear wall adjacent to the drive element that is likewise equipped with predetermined second weak points that meet with the predetermined first weak points of the outer wall of the guide sabot.

13. A projectile according to claim 12, wherein the projectile core is connected with an interior surface of the outer wall via at least two spacing elements comprising longitudinal ribs, wherein one longitudinal rib is associated with each guide sabot segment defined by adjacent predetermined first weak points that extend axially from the rear wall up to a forward side of the guide sabot.

14. A projectile according to claim 13, wherein the longitudinal ribs have pocket-like recesses disposed in a front portion.

15. A projectile according to claim 13, wherein the longitudinal ribs respectively present a conically tapering course towards a front of the projectile.

16. A projectile according to claim 13, wherein the guide sabot has a bridge-configured sleeve enveloping the projectile core, wherein the sleeve connects the longitudinal ribs on a projectile side, and the sleeve is provided with predetermined third weak points extending in axial direction that meet with the predetermined second weak points of the rear wall.

17. A projectile according to claim 13, wherein the guide sabot includes four predetermined first weak points that are uniformly distributed over the circumference of the outer wall, extending in the axial direction, wherein the predetermined weak points are located at a 45° angle relative to the longitudinal ribs.

18. A projectile according to claim 12, wherein the guide sabot is constructed in one piece and encloses, at least partially, the driving element on an outside.

19. A projectile according to claim 12, wherein the predetermined second weak points extend up to the surface of the projectile core.

20. A projectile according to claim 12, wherein the guide sabot comprises glass-fiber-reinforced polyamide or carbon-fiber-reinforced polyamide.

21. A projectile according to claim 12, wherein the projectile core is provided with a conical fin assembly.

22. A method for production of a projectile, according to claim 1, comprising the steps of:

(a) provisionally detachably connecting a drive element and a projectile core to one another to form an insert;

(b) inserting the insert into an injection-molding tool, and using the injection-molding tool to produce a contour of a guide sabot;

(c) injection molding the insert in the injection-molding tool with a material so as to produce the projectile, wherein the guide sabot of the projectile is an essentially cylindrical guide sabot comprising a plastic, wherein the plastic is a fiber-reinforced plastic;

(d) removing the projectile from the injection-molding tool; and

(e) after the projectile is removed from the injection-molding tool, then removing the provisional connection formed in step (a) between the drive element and the projectile core.

23. The method as claimed in claim 22, wherein weak points are also injection molded in the projectile during step (c).

24. The method as claimed in claim 23, wherein the weak points injection molded in the projectile during step (c) include first weak points, second weak points and third weak points, wherein the first weak points are formed in an outer wall of the guide sabot, and the second weak points are formed in a wall of a sleeve that surrounds the projectile core, and the third weak points are formed a rear wall of the guide sabot.

25. The method as claimed in claim 24, wherein at least one first weak point, and at least one second weak point, and at least one third weak point are formed by injection molding so as to be radially aligned along a single radial line extending from a longitudinal axis of the projectile core.

26. The method as claimed in claim 23, wherein guide sabot segments are injection molded in the projectile at the same time by using a number of gates corresponding to the number of guide sabot segments so the material that flows into mold areas and form the guide sabot segments meet at those weak points formed in a rear wall of the guide sabot.

27. The method as claimed in claim 22, wherein guide sabot segments are injection molded in the projectile at the same time by using a number of gates corresponding to the number of guide sabot segments so the material that flows into mold areas and form the guide sabot segments meet at weak points formed in a rear wall of the guide sabot.

28. The method as claimed in claim 27, wherein weld lines are formed when the material meets at the weak points formed in the rear wall of the guide sabot, and the weld lines weaken the material at the weak points formed in the rear wall of the guide sabot.

29. The method as claimed in claim 28, wherein the material includes fibers, and the fibers are aligned parallel to an injection direction during injection molding.

30. A method for production of a projectile having a sub-caliber projectile core and a sabot provided as a guide sabot, according to claim 12, comprising the steps of:

(a) provisionally detachably connecting a drive element and the projectile core with each other;

(b) inserting and over-molding the drive element and the projectile core as an inlay unit in an injection molding tool;

(c) producing a contour of the guide sabot; and

(d) after de-molding the inlay unit, removing the provisional connection formed in step (a) between the projectile core and the drive element.

31. A method according to claim 30, wherein predetermined weak points are also injection molded.

32. A method according to claim 31, wherein guide sabot elements are simultaneously injection-molded by a segment-corresponding number of gates so that material flowing into segment-forming molding areas meets at the predetermined weak points.

33. A method according to claim 30, wherein guide segments of the guide sabot are injection molded with the aid of gates.

34. A method according to claim 30, wherein a tracer set is screwed into an appropriate recess of a rear sided part of the projectile core.

35. A method according to claim 30, wherein the provisional connection is attained by clamping.