WHAT IS CLAIMED IS:

1. A sheet comprising:

a pulp fiber; and

a linear magnetic material that has a substantially large Barkhausen effect and that has irregularities at an outer periphery of the linear magnetic material.

2. The sheet according to claim 1,

wherein the linear magnetic material has a linear magnetic material core and a coated layer including glass, and

the coated layer partially coats the outer periphery of the linear magnetic material core.

3. The sheet according to claim 1,

wherein the pulp fiber is mixed with at least one selected from softwood tree pulp fibers and non-wood pulp fibers.

4. The sheet according to claim 2,

wherein the pulp fiber is mixed with at least one selected from softwood tree pulp fibers and non-wood pulp fibers.

5. The sheet according to claim 1,

wherein the linear magnetic material has a magnetic body core and coated layers, and

the coated layers are cylindrically formed in a circumferential direction on an outer periphery of the magnetic body core.

6. The sheet according to claim 5,

wherein a plurality of cylindrically formed layers of the coated layers are formed spaced apart from each other in a longitudinal direction of the magnetic body core.

7. The sheet according to claim 1,

wherein the linear magnetic material has a coated layer, and

the coated layer has a thickness of 1 to 100 μm inclusive.

8. The sheet according to claim 1,

wherein the linear magnetic material has a coated layer, and

the coated layer has a thickness of 5 to 100 μm inclusive.

9. The sheet according to claim 6,

wherein a gap between the coated layers is in a range of 30 μm to 1000 μm inclusive.

10. The sheet according to claim 6,

wherein a gap between the coated layers is in a range of 50 μm to 1000 μm inclusive.

11. The sheet according to claim 1,

wherein the sheet includes 1 to 50 strands of the magnetic material inclusive.

12. The sheet according to claim 1,

wherein the sheet includes 3 to 40 strands of the magnetic material inclusive.

13. The sheet according to claim 1,

wherein the sheet includes 5 to 30 strands of the magnetic material inclusive.

14. The sheet according to claim 1,

wherein the pulp fiber is a softwood tree pulp fiber or a non-wood pulp fiber.

15. The sheet according to claim 1,

wherein the pulp fiber is a virgin pulp fiber.

16. The sheet according to claim 1,

wherein the sheet has a thickness of 80 to 120 μm inclusive.

17. The sheet according to claim 1,

wherein the linear magnetic material has a magnetic body core, and

a composition of the magnetic body core is Co-B-Si or Co-Fe-B-Si.

What is claimed is:

1. A sheet comprising:

a pulp fiber; and

a linear magnetic material that has a substantially large Barkhausen effect and that has irregularities at an outer periphery of the linear magnetic material, wherein:

the linear magnetic material has (i) a magnetic body core and (ii) a plurality of coated layers being cylindrically formed in a circumferential direction on an outer periphery of the magnetic body core so that the plurality of coated layers are spaced apart from each other by a plurality of non-coated portions in a longitudinal direction of the magnetic body core.

2. The sheet according to claim 1,

wherein the pulp fiber is at least one selected from the group consisting of softwood tree pulp fibers and non-wood pulp fibers.

3. The sheet according to claim 1,

wherein each coated layer has a thickness of 1 to 100 μm inclusive.

4. The sheet according to claim 1,

wherein each coated layer has a thickness of 5 to 100 μm inclusive.

5. The sheet according to claim 1,

wherein each non-coated portion between coated layers forms a gap in a range of 30 μm to 1000 μm inclusive.

6. The sheet according to claim 1,

wherein each non-coated portion between coated layers forms a gap in a range of 50 .mu.m to 1000 μm inclusive.

7. The sheet according to claim 1,

wherein the sheet includes 1 to 50 strands of the magnetic material inclusive.

8. The sheet according to claim 1,

wherein the sheet includes 3 to 40 strands of the magnetic material inclusive.

9. The sheet according to claim 1,

wherein the sheet includes 5 to 30 strands of the magnetic material inclusive.

10. The sheet according to claim 1,

wherein the pulp fiber is a softwood tree pulp fiber or a non-wood pulp fiber.

11. The sheet according to claim 1,

wherein the pulp fiber is a virgin pulp fiber.

12. The sheet according to claim 1,

wherein the sheet has a thickness of 80 to 120 μm inclusive.

13. sheet according to claim 1,

wherein a composition of the magnetic body core is Co–B–Si or Co–Fe–B–Si.

14. The sheet according to claim 1,

wherein the pulp fiber is tangled around the plurality of non-coated portions.