CLAIMS

[Claim 1] A molded body comprising a sinterable metal powder and an organic binder,

wherein the organic binder contains a polyacetal resin and polyolefin resin,

wherein a bending modulus (MPa) upon 0.05% to 0.1% strain of the molded body is 4000 to 15000, and

a bending yield strength (MPa) is 10 or more.

[Claim 2] The molded body according to claim 1, wherein a product of the bending modulus (MPa) and the bending yield strength (MPa) is 50000 or more.

[Claim 3] The molded body according to claim 1 or 2, wherein a number of voids that are equal to or larger than 30 μm per 1 mm^2 is 10 or less when a cross section is observed under a microscope.

[Claim 4] The molded body according to any one of claims 1 to 3, wherein a maximum particle diameter of the sinterable metal powder is 30 μm or less.

[Claim 5] The molded body according to any one of claims 1 to 4, wherein the mass ratio of the polyacetal resin in the organic binder is 5 to 95 mass%, and the mass ratio of the polyolefin resin in the organic binder is 5 to 95 mass%.

[Claim 6] The molded body according to any one of claims 1 to 5, wherein a melt flow rate of the polyacetal resin is 70 to 200 g/10 min.

[Claim 7] The molded body according to any one of claims 1 to 6, wherein 75 mass% or more and 95 mass% or less of the sinterable metal powder is contained with respect to 100 mass% of the molded body.

[Claim 8] The molded body according to any of claims 1 to 7, wherein a portion with a thickness of 1 mm or less is present at 100 mm^2 or more.

[Claim 9] A method of producing a molded body comprising a sinterable metal powder and an organic binder, the method comprising:

a kneading step of kneading the sinterable metal powder and the organic binder to obtain a kneaded product; and

a molding step of molding the kneaded product to obtain a molded body,

wherein the organic binder contains a polyacetal resin and polyolefin resin,

wherein a bending modulus (MPa) upon 0.05% to 0.1% strain of the molded body is 4000 to 15000, and

a bending yield strength (MPa) is 10 or more.

[Claim 10] The method of producing a molded body according to claim 9, wherein a kneading temperature in the kneading step is 160 °C to 200 °C.

[Claim 11] The method of producing a molded body according to claim 9 or 10, wherein a cylinder temperature in the molding step is 150 °C to 190 °C.

[Claim 12] The method of producing a molded body according to any one of claims 9 to 11, wherein an injection pressure in the molding step is 50 MPa or more.

[Claim 13] The method of producing a molded body according to any one of claims 9 to 12, wherein 75 mass% or more and 95 mass% or less of the sinterable metal powder is contained with respect to 100 mass% of the molded body.

[Claim 14] The method of producing a molded body according to any one of claims 9 to 13, wherein the mass ratio of the polyacetal resin in the organic binder is 5 to 95 mass%, and the mass ratio of the polyolefin resin in the organic binder is 5 to 95 mass%.

[Claim 15] A method of producing a sintered body, the method comprising:

a degreasing step of removing the organic binder from the molded body according to any one of claims 1 to 8 or a molded body produced by the method of producing a molded body according to any one of claims 9 to 14 by heating or a chemical treatment to obtain a sintering precursor; and

a sintering step of sintering the sintering precursor to obtain a sintered body.