CLAIMS

1. A MgO-TiO sintered compact comprising TiO in an amount of 25 to 90 mol%, and remainder being MgO and unavoidable impurities.

2. The MgO-TiO sintered compact according to claim 1, wherein relative density is 95% or more.

3. The MgO-TiO sintered compact according to claim 1 or claim 2, wherein bulk resistivity is 10 Ω•cm or less.

4. The MgO-TiO sintered compact according to any one of claims 1 to 3, wherein two phases of a TiO phase and a MgO phase exist, and a number of regions in which a longest diameter of the MgO phase is 50 μm or more is 10 or less per 1 mm^2.

5. A method of producing a MgO-TiO sintered compact for a sputtering target which contains 10 mol% or more and 90 mol% or less of TiO in MgO, wherein raw material powders made from a MgO powder having an average grain size of 10 μm or less and a TiO powder having an average grain size of 50 μm or less are mixed, and the mixed powders are hot-pressed at a temperature of 1250 to 1450°C and a pressure of 200 kgf/cm^2 or more in order to prepare the MgO-TiO sintered compact.

CLAIMS

1. A sintered MgO-TiO sputtering target comprising TiO in an amount of 25 to 90 mol%, and remainder being MgO and unavoidable impurities, wherein two phases of a TiO phase and a MgO phase exist, and a number of regions in which a longest diameter of the MgO phase is 50 μm or more is 10 or less per 1 mm^2.

2. The sintered MgO-TiO sputtering target according to claim 1, wherein relative density is 95% or more.

3. The sintered MgO-TiO sputtering target according to claim 1 or claim 2, wherein bulk resistivity is 10 Ω•cm or less.

4. A method of producing a sintered MgO-TiO sputtering target comprising 25 mol% or more and 90 mol% or less of TiO contained in MgO, wherein raw material powders made from a MgO powder having an average grain size of 10 μm or less and a TiO powder having an average grain size of 50 μm or less are mixed, the mixed powders are hot-pressed at a temperature of 1250 to 1450°C and under a pressure of 200 kgf/cm^2 or more in order to prepare the sintered MgO-TiO sputtering target.