Claims

[Claim 1] A shield cable comprising:
a plurality of coated cable cores;
an inside shielding layer made of a metallic material to surround the outer periphery of the plurality of cable cores;
an outside shielding layer made of a metallic material to spirally surround the outer periphery of the inside shielding layer in such a manner as to be insulated from the inside shielding layer, so that induced current flows spirally in the outside shielding layer; and
a covering layer adapted to surround the outer periphery of the outside shielding layer.

[Claim 2] The shield cable according to claim 1, wherein the outside shielding layer is coated with insulation material.

[Claim 3] The shield cable according to claim 2, wherein the outside shielding layer is a single layered shielding tape adapted to be wound in the lengthwise direction of the shield cable, and if the shielding tape is wound spirally, separated distances on the shielding tape do not exist or overlapped portions thereon exist.

[Claim 4] The shield cable according to claim 1, wherein the outside shielding layer is a single layer shielding tape, and if the shielding tape is wound spirally, separated distances on the shielding tape exist.

[Claim 5] The shield cable according to claim 1, wherein the outside shielding layer has double layer shielding tapes wound with separated distances in the lengthwise direction of the shield cable, and at least one of the shielding tapes is coated with insulation material.

[Claim 6] The shield cable according to claim 1, wherein the outside shielding layer has double layer shielding tapes wound with separated distances in the lengthwise direction of the shield cable, and an insulation sheet is provided between the shielding tapes.

[Claim 7] The shield cable according to claim 5 or 6, wherein at least one of the shielding tapes of the outside shielding layer is made of any one of nickel steel and silicon steel.

[Claim 8] The shield cable according to claim 7, wherein the shielding tape of the outside shielding layer which is made of any one of nickel steel and silicon steel is disposed on the inside of the outside shielding layer, and the other shielding tape surrounding the outer periphery of one shielding tape is made of galvanized steel.

[Claim 9] The shield cable according to claim 7, wherein the silicon steel is non- oriented silicon steel.

[Claim 10] The shield cable according to claim 7, wherein the nickel steel has 50 to 80% by weight of nickel.

[Claim 11] The shield cable according to claim 3 or 4, wherein the slits formed during the spiral winding of the inside shielding tape of the double layer shielding tapes of the outside shielding layer are shielded by the outside shielding tape.

[Claim 12] The shield cable according to claim 2 or 5, wherein the insulation coating is formed of vanish coating by an organic material having an inorganic filler and has a thickness of 4μm or more.

[Claim 13] The shield cable according to claim 12, wherein the insulation coating has surface insulation resistance between 30 Ω/ cm^2 and 50 Ω/ cm^2.

[Claim 14] A shield cable comprising:
a core part having a plurality of cable cores;
an electrostatic shielding part made of a metallic material to surround the outer periphery of the core part;
an electromagnetic shielding part made of a metallic material to surround the electrostatic shielding part in such a manner as to be insulated from the electrostatic shielding part, so that induced current flows spirally in the electromagnetic shielding part; and
a covering layer adapted to surround the outer periphery of the electromagnetic shielding part, wherein the electromagnetic shielding part has a double layer tape structure insulated from each other.

[Claim 15] The shield cable according to claim 14, wherein an inside shielding tape of the double layer tape is made of a high permeability material and an outside shielding tape of the double layer tape is made of a low permeability material, and the inside and outside shielding tapes are wound spirally.

[Claim 16] The shield cable according to claim 15, wherein the inside shielding tape is made of non-oriented silicon steel.

[Claim 17] The shield cable according to claim 15, wherein the inside shielding tape is made of nickel steel having 50 to 80% by weight of nickel.

[Claim 18] The shield cable according to claim 15, wherein any one of the inside shielding tape made of the high permeability material and the outside shielding tape made of the low permeability material of the electromagnetic shielding part is coated with insulation material.

[Claim 19] The shield cable according to claim 15, wherein an insulation sheet is disposed between the inside shielding tape made of the high permeability material and the outside shielding tape made of the low permeability material of the electromagnetic shielding part.

[Claim 20] The shield cable according to claim 19, wherein the electrostatic shielding part and the electromagnetic shielding part are insulated from each other by an insulation sheet made of the same material as the insulation sheet adapted to insulate the inside and outside shielding tapes of the electromagnetic shielding part from each other.

[Claim 21] The shield cable according to claim 15, wherein the slits spacedly formed by the spiral winding of the inside shielding tape made of the high permeability material of the electromagnetic shielding part are shielded when the outside shielding tape made of the low permeability material is wound spirally.

[Claim 22] A shield cable comprising:

a plurality of cable cores;

an electrostatic shielding part made of a metallic material to surround the cable cores; and

an electromagnetic shielding part having an inside shielding tape made of a high permeability metallic material and an outside shielding tape made of a low permeability metallic material in such a manner as to be insulated from the electrostatic shielding part, wherein when the inside and outside shielding tapes are wound spirally in a state of being insulated from each other, a shielding rate is 0.05 or less in accordance with the input voltage between 0 V/km and 500 V/km.

[Claim 23] The shield cable according to claim 22, wherein any one of the inside shielding tape made of the high permeability metallic material and the outside shielding tape made of the low permeability metallic material of the electromagnetic shielding part is coated with insulation material to allow the inside and outside shielding tapes to be insulated from each other, and alternatively, an insulation sheet is disposed between the inside shielding tape and the outside shielding tape to allow the inside and outside shielding tapes to be insulated from each other.

[Claim 24] The shield cable according to claim 22, wherein the electrostatic shielding part is formed of a corrugated pipe made of copper.

[Claim 25] The shield cable according to claim 22, wherein the electrostatic shielding part and the electromagnetic shielding part are insulated from each other by a sheath member made of polyethylene.