FIG. 3 is an enlarged view schematically showing a part of a rotor according to an embodiment of the present invention.

FIG. 4 is a cross-sectional view schematically showing a part of the rotor according to an embodiment of the present invention.

FIG. 5 is a cross-sectional view schematically showing a rotor according to an embodiment of the present invention.

FIG. 6 is a cross-sectional view schematically showing a rotor according to an embodiment of the present invention.

FIG. 7 is a top view schematically showing a rotor according to a modification.

FIG. 8 is a top view schematically showing a rotor according to a modification.

FIG. 9 is a top view schematically showing a rotor according to a modification.

## DESCRIPTION OF EMBODIMENTS

[0013]

Hereinafter, the embodiments of the present invention will be described with reference to the drawings. Incidentally, in all the drawings, the same reference numerals are attached to the same components and an explanation thereof will not be repeated as appropriate.

[0014]

FIG. 1 is a top view of the rotor according to an embodiment of the present invention. FIG. 3 is an enlarged view of a part of the rotor according to an embodiment of the present invention. FIG. 4 is a cross-sectional view of a part of the rotor according to an embodiment of the present invention. FIG. 5 is a cross-sectional view showing the configuration of the rotor. The rotor 100 of the present embodiment includes a rotor core 110, a magnet 120, and a fixing member 130. The rotor core 110 has a laminate formed

As shown in FIG. 5, the end plates 114 is fixed to the shaft 170 and the rotor core 110 is sandwiched by the end plates 114 in the axial direction. The end plate 114 is fixed in the shaft 170 by the caulking portion 160. Not being limited to such an embodiment, as shown in FIG. 6, the end plates 118a and 118b may be fixed by welding or the like to the shaft 170. Further, in the hole portions 150, the fixing member 130 may not be formed on the side wall of the magnet 120 on the outer peripheral side, but as shown in FIG. 6, the fixing member 130 may be formed on both side walls of the magnet 120 on the outer peripheral side and the inner peripheral side.

[0022]

Hereinbelow, the respective components of the fixing resin composition, constituting the rotor 100 of the present invention, will be described.

This fixing resin composition is used to form rotors or formation of vehicles which are provided with rotors. That is, the fixing resin composition is used to fixing a magnet arranged in the hole portions formed in a rotor core constituted with an electromagnetic steel plate.

[0023]

(Fixing resin composition)

The fixing resin composition according to the present invention includes a thermosetting resin (A) containing an epoxy resin, a curing agent (B), and an inorganic filler (C). In this fixing resin composition, the ICI viscosity at 150°C of the epoxy resin is specified to be equal to or less than 3 poises. Further, for this fixing resin composition, when the fixing resin composition is injected into a flow passage having a cross-sectional shape with a width of 3 mm and a thickness of 80 μm under the conditions of a mold temperature of 175°C, a molding pressure of 6.9 MPa, and an injection time of 20 seconds, the slit flow length is equal to or more than 75 mm. Here, the slit flow length is

FIG. 3 is an enlarged view schematically showing a part of a rotor according to an embodiment of the present invention.

FIG. 4 is a cross-sectional view schematically showing a part of the rotor according to an embodiment of the present invention.

FIG. 6 is a cross-sectional view schematically showing a rotor according to an embodiment of the present invention.

FIG. 7 is a top view schematically showing a rotor according to a modification.

FIG. 8 is a top view schematically showing a rotor according to a modification.

FIG. 9 is a top view schematically showing a rotor according to a modification.

## DESCRIPTION OF EMBODIMENTS

[0013]

Hereinafter, the embodiments of the present invention will be described with reference to the drawings. Incidentally, in all the drawings, the same reference numerals are attached to the same components and an explanation thereof will not be repeated as appropriate.

[0014]

FIG. 1 is a top view of the rotor according to an embodiment of the present invention. FIG. 3 is an enlarged view of a part of the rotor according to an embodiment of the present invention. FIG. 4 is a cross-sectional view of a part of the rotor according to an embodiment of the present invention. The rotor 100 of the present embodiment includes a rotor core 110, a magnet 120, and a fixing member 130. The rotor core 110 has a laminate formed

As shown in FIG. 6, the end plates 118a and 118b may be fixed by welding or the like to the shaft 170. Further, in the hole portions 150, the fixing member 130 may not be formed on the side wall of the magnet 120 on the outer peripheral side, but as shown in FIG. 6, the fixing member 130 may be formed on both side walls of the magnet 120 on the outer peripheral side and the inner peripheral side.

[0022]

Hereinbelow, the respective components of the fixing resin composition, constituting the rotor 100 of the present invention, will be described.

This fixing resin composition is used to form rotors or formation of vehicles which are provided with rotors. That is, the fixing resin composition is used to fixing a magnet arranged in the hole portions formed in a rotor core constituted with an electromagnetic steel plate.

[0023]

(Fixing resin composition)

The fixing resin composition according to the present invention includes a thermosetting resin (A) containing an epoxy resin, a curing agent (B), and an inorganic filler (C). In this fixing resin composition, the ICI viscosity at 150°C of the epoxy resin is specified to be equal to or less than 3 poises. Further, for this fixing resin composition, when the fixing resin composition is injected into a flow passage having a cross-sectional shape with a width of 3 mm and a thickness of 80 μm under the conditions of a mold temperature of 175°C, a molding pressure of 6.9 MPa, and an injection time of 20 seconds, the slit flow length is equal to or more than 75 mm. Here, the slit flow length is