Claims

[Claim 1]

A fiber-reinforced composite pipe comprising a first layer of tubular form containing a polyolefin-based resin, a second layer of tubular form containing a polyolefin-based resin, a glass fiber and a compatibilizing agent, and a third layer of tubular form containing a polyolefin-based resin, wherein

the second layer is disposed on the outer side of the first layer and the third layer is disposed on the outer side of the second layer;

a ratio of a thickness of the second layer relative to a total thickness of the first, second and third layers is 0.3 or more and 0.8 or less; and

a content of the polyolefin-based resin is 45 wt % or more and 84 wt % or less, a content of the glass fiber is 15 wt % or more and 45 wt % or less and a content of the compatibilizing agent is 0.5 wt % or more and 10 wt % or less in 100 wt % of the second layer, and further comprising

a gas barrier layer and an adhesive layer, wherein the adhesive layer is disposed on the outer side of the third layer and the gas barrier layer is disposed on the outer side of the adhesive layer.

[Claim 2]

The fiber-reinforced composite pipe according to Claim 1, wherein the gas barrier layer is the outermost layer of the fiber-reinforced composite pipe.

[Claim 3]

The fiber-reinforced composite pipe according to Claim 1, wherein the total thickness of the adhesive layer and the gas barrier layer is 0.125 mm or more and 0.4 mm or less.

[Claim 4]

A cold/warm water piping system comprising:

the fiber-reinforced composite pipe according to any one of Claims 1 to 3;

a metal-reinforced composite pipe containing a polyolefin resin and a metal; and

a connecting member connecting the fiber-reinforced composite pipe and the metal-reinforced composite pipe;

wherein

the fiber-reinforced composite pipe has a linear thermal expansion coefficient of 10×10^{-5}/°C or less;

the fiber-reinforced composite pipe occupies a volume of 70% or more of a total volume of the fiber-reinforced composite pipe and the metal-reinforced composite pipe; and

cold/warm water having a temperature width of 20°C or more is transported.

[Claim 5]

The cold/warm water piping system according to Claim 4, wherein the fiber-reinforced composite pipe has an inner diameter of 19 mm or more and the metal-reinforced composite pipe has an inner diameter of 75 mm or less.

[Claim 6]

The cold/warm water piping system according to claim 4 or 5, wherein the connecting member comprises

a junction area for electrofusion for connecting with the fiber-reinforced composite pipe, and

a screw coupling area for connecting to the metal-reinforced composite pipe.