Claims

[Claim 1]

A glass composition for glass fiber, comprising:

SiO_2 in a range of 36.0% by mass or more and less than 48.0% by mass;

B_2O_3 in a range of 18.0% by mass or more and 32.0% by mass or less;

Al_2O_3 in a range of 12.0% by mass or more and 24.0% by mass or less;

P_2O_5 in a range of 2.5% by mass or more and 8.9% by mass or less; and

CaO and MgO in a range of 5.5% by mass or more and 13.0% by mass or less in total,

with respect to a total amount.

[Claim 2]

The glass composition for glass fiber according to claim 1, wherein a content S of SiO_2, a content P of P_2O_5, a content C of CaO and a content M of MgO satisfy the following formula (1-1):

$$0.38 \leq (C + M)/(S/P) \leq 1.52 \quad ... (1\text{-}1)$$

[Claim 3]

The glass composition for glass fiber according to claim 1, wherein a content S of SiO_2, a content B of B_2O_3, a content A of Al_2O_3, a content P of P_2O_5, a content C of CaO and a content M of MgO satisfy the following formula (2-1):

$$0.91 \leq (S/P) \times (C + M)/(A + B) \leq 2.31 \quad ... (2\text{-}1)$$

[Claim 4]

The glass composition for glass fiber according to claim 1, wherein the S, B, A, P, C and M satisfy the following formula (2-2):

$$0.92 \leq (S/P) \times (C + M)/(A + B) \leq 2.24 \quad ... (2\text{-}2)$$

[Claim 5]

The glass composition for glass fiber according to claim 1, wherein the S, B, A, P, C and M satisfy the following formula (2-3):

$$0.93 \leq (S/P) \times (C + M)/(A + B) \leq 1.92 \quad ... (2\text{-}3)$$

[Claim 6]

Glass fiber comprising glass filaments formed of the glass composition for glass fiber according to claim 1.

[Claim 7]

The glass fiber according to claim 6, wherein a filament diameter of each of the glass filaments is less than 3.0 μm.

[Claim 8]

A glass fiber woven fabric comprising the glass fiber according to claim 6 or claim 7.

[Claim 9]

A glass fiber-reinforced resin composition comprising the glass fiber according to claim 6 or claim 7.