Claims

[Claim 1]

A glass fiber-reinforced resin composition, wherein

in glass fiber included in the glass fiber-reinforced resin composition, a content of SiO_2 S with respect to a total amount of the glass fiber is in a range of 48 to 70% by mass,

in the glass fiber included in the glass fiber-reinforced resin composition, a content of Al_2O_3 A with respect to the total amount of the glass fiber is in a range of 9 to 30% by mass,

the glass fiber comprises a flat cross-sectional shape having a minor axis DS in a range of 6.0 to 15.0 μm and a major axis DL in a range of 30.5 to 50.0 μm,

a glass fiber content C in the glass fiber-reinforced resin composition is in a range of 65.0 to 85.0% by mass, and

the S, A, DS, DL, and C satisfy following formula (1):

$$2.24 \leq (100 \times (A^2/S) \times (C/100)^8)/(DS^{3/4} \times DL^{1/4}) \leq 5.85 \quad (1).$$

[Claim 2]

The glass fiber-reinforced resin composition according to claim 1, wherein

the S is in a range of 50 to 60% by mass, the A is in a range of 10 to 20% by mass, the DS is in a range of 7.5 to 13.0 μm, the DL is in a range of 30.5 to 48.0 μm, and the C is in a range of 70.5 to 82.5% by mass, and

the S, A, DS, DL, and C satisfy following formula (2):

$$2.27 \leq (100 \times (A^2/S) \times (C/100)^8)/(DS^{3/4} \times DL^{1/4}) \leq 4.30 \quad (2).$$

[Claim 3]

The glass fiber-reinforced resin composition according to claim 2, wherein

the S, A, DS, DL, and C satisfy following formula (3):

$$2.29 \leq (100 \times (A^2/S) \times (C/100)^8)/(DS^{3/4} \times DL^{1/4}) \leq 3.37 \quad (3).$$

[Claim 4]

The glass fiber-reinforced resin composition according to any one of claims 1 to claim 3, wherein

the resin included in the glass fiber-reinforced resin composition is a thermoplastic resin for injection molding selected from a group consisting of polyamide resins, polybutylene terephthalate resins, polycarbonate resins, polyarylene sulfide resins, polyaryl ketone resins, and liquid crystal polymer (LCP).

[Claim 5]

The glass fiber-reinforced resin composition according to claim 4, wherein

the resin included in the glass fiber-reinforced resin composition is a polyamide resin.

[Claim 6]

A glass fiber-reinforced resin molded article formed from the glass fiber-reinforced resin composition according to any one of claims 1 to claim 5.