

[ABSTRACT]

Provided is a quartz glass crucible capable of increasing the manufacturing yield of a silicon single crystal having a low oxygen concentration.

A quartz glass crucible 1 having a cylindrical side wall portion 10a, a bottom
5 portion 10b, and a corner portion 10c connecting the side wall portion 10a and the
bottom portion 10b to each other includes a transparent layer 11 made of quartz glass that
does not contain bubbles, a bubble layer 12 formed outside the transparent layer 11 and
made of quartz glass containing a large number of bubbles, and a semi-molten layer 13
formed outside the bubble layer 12 and made of raw material silica powder solidified in a
10 semi-molten state. An infrared transmissivity of the corner portion 10c in a state where
the semi-molten layer 13 is removed is 25 to 51%, the infrared transmissivity of the
corner portion 10c in the state where the semi-molten layer 13 is removed is lower than
an infrared transmissivity of the side wall portion 10a, and the infrared transmissivity of
the side wall portion 10a in the state where the semi-molten layer 13 is removed is lower
15 than an infrared transmissivity of the bottom portion 10b.