

ABSTRACT

[Problem] A quartz glass crucible that allows an increase in strength during crystal pulling up, by forming a thick crystal layer on an outer surface of the crucible at an appropriate crystallization rate is provided.

- 5 [Solution] A quartz glass crucible 1 includes a crucible base body 10 made of silica glass and a crystallization accelerator-containing coating film 13 formed on the outer surface 10o of the crucible base body 10. 10 hours after a start of a heat treatment performed in an Ar atmosphere at a furnace temperature of 1580°C and a furnace pressure of 20 Torr, a thickness of an outer surface crystal layer formed on the outer
- 10 surface 10o of the crucible base body 10 is 0.21 to 0.5 mm and a crystallization rate is 21 to 50 $\mu\text{m/hr}$. A crystallization rate of the outer surface 10o after 20 hours from the start of the heat treatment is 10 $\mu\text{m/hr}$ or less.