

Abstract

HEAT SINKS AND PROCESS FOR PRODUCING THE SAME

Provided is a heat sink which has excellent processability and is economical, even though it employs diamond, as well as, a process for producing the same. The heat sink is molded using a composition obtained by adding a diamond powder consisting of 0.1 to 100 μ m high-purity diamond particles to cemented carbide consisting primarily of WC and, as the rest, at least one metal selected from Co, Ni and Fe and inevitable impurity. The proportion of the diamond powder admixed relative to the cemented carbide is preferably 5 to 90 %, and the diamond heat sink is produced by sintering the particulate mixture of diamond, WC, Co, etc. at a temperature of 1200 to 1500 °C under a pressure of 3 to 6 GPa.

Fig 1

