

## ABSTRACT

An upper die (1) has a cavity member (6) constituting an inner bottom surface (5) of a cavity (4), and a surrounding member (7). The cavity member (6) is formed of a low adhesion material in accordance with the present invention, and includes a body portion (8) and a surface layer (10) formed on an undersurface (9) of the body portion (8) exposed to a fluid resin. The body portion (8) is formed of a first material of 3YSZ and a second material of ZrN that are mixed at a predetermined ratio. The surface layer (10) is formed of  $Y_2O_3$  having a low adhesion property with respect to a set resin, and has a thermal expansion coefficient smaller than that of the body portion (8). By bonding the body portion (8) and the surface layer (10) at a high temperature and then cooling them down, compressive residual stress is caused in the surface layer (10) due to a difference in the thermal expansion coefficients thereof, and the compressive residual stress is present in the surface layer (10).