ABSTRACT

A semiconductor manufacturing apparatus includes: a peeling mechanism to peel a pressure sensitive adhesive (PSA) tape from a semiconductor wafer constituted by a plurality of semiconductor chips which are separated therefrom, the semiconductor wafer having an element formation surface to form an element thereon and a rear surface opposite to the element formation surface, the PSA tape adhering to the element formation surface of the semiconductor wafer, each of the semiconductor chips having an adhesive layer formed on the rear surface; wherein the peeling mechanism has a sucking section which have a porous member to hold the semiconductor wafer by suction, the porous member being segmented into at least two sucking areas in the direction in which the PSA tape is peeled.

(Fig. 5)