

ABSTRACT

THERMOPLASTIC FIBER-REINFORCED RESIN WHEEL MANUFACTURING
METHOD

5 A resin wheel in which a rim portion and a disc portion are integrated is
manufactured with good formability in an extremely short time. In a manufacturing
method of a resin wheel in which a material 11 made of a thermoplastic fiber-reinforced
resin is formed with a mold 31, the temperature of the mold 31 is set to a temperature
lower than a melting point of a resin matrix of the material 11. As the material 11, a
10 billet-shaped material 11b and a sheet-shaped material 11a are prepared, and heated to a
temperature higher than the melting point of the resin matrix. The heated billet-shaped
material 11b is held in the mold 31 surrounded by a disc outer surface mold 32 and a
rim outer diameter mold 33, and the sheet-shaped material 11a is held on a surface of
the rim outer diameter mold 33 on a punch mold 34 side. While the punch mold 34 is
15 lowered and the sheet-shaped material 11a is subjected to deep draw forming to form
the rim portion of the wheel, a part of the sheet-shaped material 11a is pressed against
the billet-shaped material 11b to join both materials, and the billet-shaped material 11b
is subjected to compression forming to form the disc portion of the wheel.

20 [FIG. 1]