CLAIMS

1. A mold release film to be used for a process for producing a package for mounting a semiconductor element using a mold having an upper mold and a lower mold,

said package for mounting a semiconductor element, comprises a substrate having a mounting surface for mounting a semiconductor element and a packaging body formed from a cured product of a curable resin and having a frame-shaped portion surrounding the mounting surface, and the package has a concave portion formed by the mounting surface and the packaging body, and said process for producing a package for mounting a semiconductor element comprises:

a step of disposing a mold release film having a substantially constant thickness over the film, on the upper mold having a convex portion of which the shape corresponds to the concave portion, disposing the substrate on the lower mold, and closing the upper mold and the lower mold so as to be in close contact with the convex portion to the mounting portion of the substrate via the mold release film,

a step of filling a space formed between the upper mold and the lower mold, with a curable resin, followed by curing the curable resin, and

a step of releasing a cured product of the curable resin together with the substrate, from the mold;

whereby said mold release film comprises a first layer to be in contact with the curable resin at the time of curing the curable resin, and a second layer,

the first layer having a thickness of from 3 to 25 μm and further has a tensile storage modulus at 180°C being from 10 to 50 MPa, and

the second layer having a product of the tensile storage modulus (MPa) at 180°C and the thickness (μm) being from 2,000 to 13,000; and

wherein a resin constituting the third layer is at least one member selected from the group consisting of a fluororesin, a fluororesin, an acrylic rubber, a thermosetting silicone, a polyester, a polyamide, a polystyrene, an ethylene/vinyl alcohol copolymer and a polyolefin having a melting point of at least 200°C.