



ABSTRACT OF THE DISCLOSURE:

Hollow, resin mechanical part having a shaft integrally formed therewith and an injection molding method for producing the same

Disclosed is a hollow, resin mechanical part having a shaft integrally formed therewith, comprising a hollow, integral, functional segment-shaft structure comprising at least one functional resin segment, and a resin shaft coaxially, integrally formed with the functional segment, wherein the integral segment-shaft structure satisfies the relationships defined by the following formula $0.9 \leq L(b)/L(a) \leq 1$, in which $L(a)$ represents the entire length of the integral segment-shaft structure, and $L(b)$ represents the length of the hollow. The mechanical part of the present invention has not only high dimensional precision and excellent material-recycling characteristics, but also can be produced with high productivity, and is very useful in various fields, such as automobiles, ordinary machinery, precision machinery and electric and electronic equipment. Also disclosed is a hollow injection molding method for efficiently producing this mechanical part, comprising injecting a molten resin into a mold cavity through the gate to form a molten resin mass, and introducing a hollow-forming fluid under pressure into the molten resin mass through the gate, wherein the gate is located in register with a position within a terminal region of the cavity which region has a length of $1/10$ of the entire length of an integral segment-shaft structure to be produced. In this method, an auxiliary chamber communicated with the cavity is preferably used.

This Sheet Has Been Replaced



ABSTRACT

Figure 6(a) of the drawings should accompany the abstract when published.