

FIBER-REINFORCED RESIN HOLLOW CYLINDRICAL BODY

Abstract

Provided is a fiber-reinforced resin hollow cylindrical body that is highly resistant to torsion and also comprises impact energy absorbency enabling the cylindrical body to be used in an energy absorbing member such as a crush box. The fiber-reinforced resin hollow cylindrical body is composed of a reinforcing fiber yarn and a resin composition with which the reinforcing fiber yarn is impregnated. The fiber diameter D of the reinforcing fiber yarn is in the range of 10.0 to 18.0 μm , the weight T of the reinforcing fiber yarn is in the range of 100 to 1500 tex, the volume content V of the reinforcing fiber yarn in the fiber-reinforced resin hollow cylindrical body is in the range of 40.0 to 80.0%, the D, T and V satisfy the following formula (1):

$$0.090 \leq T^{1/4} \times V/D^3 \leq 0.155 \dots (1).$$

No Figure