

HIGH-EXPANSIBILITY FOAMED POLYPROPYLENE BEAD AND PREPARATION METHOD THEREOF

Abstract

The present invention discloses a high-expansibility foamed polypropylene bead and a preparation method thereof. The formula includes the following ingredients in parts by weight: 87-100 parts of random propylene-butene copolymer polypropylene, 0-13 parts of homo-polypropylene, 1-5 parts of blowing promoter, 0.01-2 parts of special porous auxiliary agent, and 5-14 parts of other auxiliary agent. The molar ratio of monomer butene of the random propylene-butene copolymer polypropylene is 3-5%, the melting point is 140-147 °C, the melt index is 6- 8 g/10 min, and the bending modulus is greater than 900 MPa. The melting point of the homo-polypropylene is 160-165 °C. The special porous auxiliary agent is one or two of porous silicon dioxide and porous titanium dioxide. In the process of the present invention, a foaming tube with a controllable temperature of 90-110 ° C can be used for prolonging the pore increase time and adjusting the pore size to finally obtain foamed polypropylene particles with pore size of 250-450μm. By adoption of the present invention, the production efficiency of foamed polypropylene can be improved, and the energy consumption is reduced.

[Fig. 1]