

Abstract

Polyethylene composition and use thereof, and polyolefin microporous breathable film prepared therefrom

A polyethylene composition and the use thereof, and a polyolefin microporous breathable film prepared therefrom. The polyethylene composition comprises a polyethylene matrix resin and a pore-forming agent, wherein the content of the pore-forming agent is 30-110 parts by weight on the basis of 100 parts by weight of the polyethylene matrix resin, the pore-foaming agent comprises maleic anhydride copolymer microspheres, a copolymer in the microsphere comprises a structural unit A from maleic anhydride, a structural unit B from a vinyl-containing comonomer M and an optional cross-linking structure unit from a cross-linking agent, and the average particle size of the maleic anhydride copolymer microspheres is 500-2000 nm. The polyethylene composition can be used for preparing a breathable film without using a coupling agent, a dispersing agent and/or a surfactant, and achieves uniform air permeability and a high water vapor transmission rate. The film can be used for breathable composite products such as sanitary products, medical products, and food packaging or building products.

(Fig. 1)