

ABSTRACT

A battery separator comprising: a microporous polyolefin film having from 0.1% to 50% by weight of a block copolymer including a polyetheresteramide monomer. In this battery separator the polyolefin is selected from the group consisting of: polyethylene, polypropylene, polybutylene, polymethylpentene, mixtures thereof, and copolymers thereof. Preferably the polyolefin is polyethylene, mixtures of polyethylene and copolymers of polyethylene, or polypropylene, mixtures of polypropylene and copolymers of polypropylene and has less than or equal to 5% by weight of the block copolymer. In the battery separator of the invention, the microporous film generally has a thickness of no greater than 200 microns, a porosity in the range of 10 to 90%, and a pore size in the range of 0.005 micron to 1.5 micron.