

WATER ABSORBING AGENT, WATER ABSORBING ARTICLE AND METHOD FOR
PRODUCTION OF WATER ABSORBING AGENT

Abstract

An object of the present invention is to provide a water absorbing agent having a low amount of residual monomer, small variance of the amount of residual monomer among ranges of particle size distribution and favorable absorption properties, and being sanitary; an absorbing article; and a method for the production of a water absorbing agent. The water absorbing agent of the present invention has the amount of residual monomer of not higher than 500 ppm, and a residual monomer index of not greater than 0.30. The method for the production includes a first step of obtaining a hydrogel polymer by polymerizing an aqueous solution of a monomer including an unsaturated carboxylic acid and/or a salt thereof in the presence of a crosslinking agent; a second step of obtaining a water absorbent resin precursor which is in powder form and includes particles having a particle size of 300 to 850 μm and particles having a particle size of smaller than 300 μm as main components by drying said hydrogel polymer followed by pulverization and classification to adjust the particle size distribution, a third step of obtaining a water absorbent resin by heating a mixture of said water absorbent resin precursor and a surface crosslinking agent, which can form an ester bond around the surface of said water absorbent resin precursor, a fourth step of adding by spraying an aqueous solution that includes a sulfur-containing reducing agent to said water absorbent resin, and a fifth step of subjecting the mixture of the water absorbent resin and

said aqueous solution to a heat treatment under an airflow of not lower than 40°C but not higher than 120°C.