

PROCESS FOR PRODUCING WATER-ABSORBENT RESIN

ABSTRACT

The present invention relates to a process for producing a water-absorbent resin, wherein the water-absorbent resin has superior water-absorption performance including a high water-retention capacity, a high water-absorption capacity under a load and a high vertical diffusion water-absorption capacity, and has a decreased content of residual monomers, and wherein the water-absorbent resin is suitable for an absorbent article. The present invention also relates to a water-absorbent resin having specific performance and produced by the process.

The present invention provides a process for producing a water-absorbent resin, characterized in that

a reverse-phase suspension polymerization of a water-soluble ethylenically unsaturated monomer is carried out in a hydrocarbon dispersion medium comprising a dispersion stabilizer while an azo-based compound and a peroxide are combined in the presence of an internal-crosslinking agent, in that

the following formulae are satisfied,

$$0.10 \leq B / (A + B) \quad (1), \text{ and}$$

$$0.055 \leq B + 9 \times C \leq 0.120 \quad (2),$$

wherein A mol, B mol and C mol represent used amounts of the azo-based compound, the peroxide and the internal-crosslinking agent, respectively, relative to 100 mol of the water-soluble ethylenically unsaturated monomer used in the polymerization, and in that

a post-crosslinking reaction is carried out by adding a post-crosslinking agent after the polymerization.

[No Suitable Figure]