

Title (en)
FLAMEPROOF RAYON FIBER, PROCESS FOR PRODUCTION THEREOF, AND FLAMEPROOF FIBER STRUCTURE

Title (de)
FLAMMFESTE VISKOSEFASER, HERSTELLUNGSVERFAHREN DAFÜR UND FLAMMFESTE STRUKTUR

Title (fr)
FIBRE DE RAYONNE IGNIFUGE, PROCÉDÉ DE PRODUCTION ASSOCIÉ, ET STRUCTURE DE FIBRE IGNIFUGE

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Application
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Abstract (en)
[origin: US2012015185A1] A flameproof rayon fiber having excellent flameproofness as well as excellent flame retardance, a method for manufacturing the same, and a flameproof fiber structure are provided. The flameproof rayon fiber according to the present invention includes components of silicon and sodium. Glass remains when the fiber is burned at 800° C., the glass component has a property of softening at 800° C., and when subjected to an X-ray fluorescence analysis, the rayon fiber has a silicon content in the range of 5 to 30% by mass and a sodium content in the range of 0.1 to 3% by mass. The flameproof rayon fiber according to the present invention can be manufactured by preparing an undiluted viscose solution; adding a solution containing a silicate compound containing an alkali metal to the undiluted viscose solution so as to make an alkali metal-containing silicate compound-added viscose solution; performing spinning by extruding the alkali metal-containing silicate compound-added viscose solution through a spinneret into a spinbath containing sulfuric acid, thus producing a fiber to be treated containing the silicate compound; and treating, in a scouring or aftertreatment process, the fiber to be treated with a solution having a pH in the range of 4 to 11 and a buffer action and containing sodium. A flameproof fiber structure of the present invention contains at least 30% by mass of the flameproof rayon fiber.

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Citation (search report)

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