

# Download Water Soluble Polymer Applications In Foods

Dietary fiber or roughage is the portion of plant-derived food that cannot be completely broken down by digestive enzymes. It has two main components: Soluble fiber – which dissolves in water – is readily fermented in the colon into gases and physiologically active by-products, such as short-chain fatty acids produced in the colon by gut bacteria; it is viscous, may be called prebiotic ...History. Cellulose was discovered in 1838 by the French chemist Anselme Payen, who isolated it from plant matter and determined its chemical formula. Cellulose was used to produce the first successful thermoplastic polymer, celluloid, by Hyatt Manufacturing Company in 1870. Production of rayon ("artificial silk") from cellulose began in the 1890s and cellophane was invented in 1912. 1.1. Introduction. Emulsions are widely used in applications where the formation of a metastable dispersion of two immiscible fluids is required, as in cosmetic creams, lotions, hairsprays and sunscreens, pharmaceutical delivery systems for lipophilic drugs, paints, dry-cleaning formulations, agrochemical commodities, and the oil industry (Tadros, 2009). Chitosan samples with different molecular weights were prepared by depolymerization with hemicellulase, and water-soluble half N-acetylated chitosan samples were obtained by N-acetylation with acetic anhydride. The action of chitosans with molecular weights  $M_w$  from  $1.4 \times 10^3$  to  $4.0 \times 10^5$  on the growth of *Staphylococcus aureus*, *Escherichia coli* and *Candida albicans* was explored by microcalorimetry.