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## Physical Treatment on Rheology of Fluid Prepared with Sea Tangle(*Laminaria japonica*) Powder

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In the country the latest date, according to elevation the standard of living and diversity of the dietary life has been increasing demand of the dietary fiber. Demand of soluble dietary fiber has been increasing suddenly as a development of new processed food especially health drinking etc. Development of substitute food was required using sea tangle, sea mustard etc. Main ingredient of sea tangle ; Alginic acid required a large time at room temperature as well as not dissolved by solvent alcohols included and deposited also its higher viscosity affected to the usefulness. This study was desinged physical treatment as improved viscosity of dried sea tangle powder. This method was roasted(1, 3, 5, 7 and 10min) to strong heat and heated in the interval at 121℃(5, 10, 15, 30, 60, 120, 180 and 300min) by autoclave. It was extracted during 0.5, 1, 2 and 4hr at 20℃, 100℃ since then it were observed changes viscosity, solid yields, ash, reducing sugar and pH. First, roasted sea tangle was a low viscosity as well as stink according to prolong a roast times. Viscosity of roasting 3min was decreased double from 330.9cP to 194.2cP and viscosity roasting 5min was decreased from 74.1cP. Pressural roasting 3min was started to show a slight decrease as 263.6cP out of a pressural roasting treatment. As a result roasting 5min, a pressural roasting 3min, treatment of pressure 30min was showed the most optimum treatment. Reducing sugar was increased double from more than 0.6% to 0.32% all treatment compare with control sample. Solid yield was showed slight decrease for a long roasting times. Ash was becoming from 0.92% control sample to 1.02% roasting 10min and pressural roasting 10min respectively by increase small quantity.