

## INTISARI

### KARAKTERISTIK SENSORIS, FISIK, DAN KIMIA MI SHIRATAKI YANG DIBUAT DENGAN VARIASI KONSENTRASI TEPUNG GLUKOMANAN PORANG (*Amorphophallus oncophyllus*)

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Mi shirataki merupakan salah satu jenis konnyaku yang berbentuk mi dengan kalori yang rendah sehingga cocok dikonsumsi sebagai makanan diet rendah kalori. Mi shirataki dapat dibuat menggunakan tepung glukomanan yang diekstrak dari umbi porang (*Amorphophallus oncophyllus*). Glukomanan merupakan senyawa polisakarida yang larut air serta dapat membentuk larutan kental, dengan penambahan kalsium hidroksida glukomanan dapat membentuk gel yang kuat, elastis, serta tidak meleleh pada suhu panas. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi glukomanan porang terhadap karakteristik sensoris yang dinilai melalui uji hedonik dan karakteristik fisik mi shirataki, kemudian dilakukan pengujian karakteristik kimia mi shirataki yang paling disukai oleh panelis berdasarkan uji sensoris. Mi shirataki dibuat dengan konsentrasi glukomanan porang 2,5%, 3%, dan 3,5%. Hasil penelitian menunjukkan konsentrasi glukomanan porang berpengaruh terhadap karakteristik sensoris dan fisik mi shirataki. Mi shirataki dengan konsentrasi glukomanan porang 3% merupakan sampel yang paling disukai oleh panelis. Karakteristik fisik mi shirataki dengan konsentrasi glukomanan porang yang semakin tinggi memiliki *tensile strength*, *elongasi*, *hardness* dan *whiteness* yang lebih tinggi pula. Mi shirataki dengan konsentrasi glukomanan porang 3% memiliki kadar air  $98,04 \pm 0,08\%$ , kadar abu  $0,13 \pm 0,00\%$ , kadar lemak  $0,019 \pm 0,000\%$ , kadar protein  $0,123 \pm 0,003\%$ , karbohidrat *by difference*  $1,693 \pm 0,075\%$ , kalori  $105,840 \pm 29,799$  kal/g, serta pH  $8,72 \pm 0,01$ . Mi shirataki dengan konsentrasi glukomanan porang 3% termasuk kategori makanan rendah kalori.

Kata Kunci: mi shirataki, glukomanan, umbi porang

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## ABSTRACT

### SENSORY, PHYSICAL, AND CHEMICAL CHARACTERISTICS OF SHIRATAKI NOODLES MADE WITH VARIOUS CONCENTRATIONS OF PORANG (*Amorphophallus oncophyllus*) GLUCOMANNAN FLOUR

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Shirataki noodles is a type of konnyaku that is in the form of low-calorie noodles, making it suitable for consumption as a low-calorie diet food. Shirataki noodles can be made using glucomannan flour extracted from porang (*Amorphophallus oncophyllus*) tubers. Glucomannan is a water-soluble polysaccharide compound and can form a thick solution, with the addition of calcium hydroxide glucomannan can form a strong, elastic gel, and does not melt at high temperatures. This study aims to determine the effect of porang glucomannan concentrations on sensory characteristics assessed through hedonic tests and physical characteristics of shirataki noodles, then tested the chemical characteristics of shirataki noodles which were most preferred by panelists based on sensory tests. Shirataki noodles were made with porang glucomannan concentrations of 2.5%, 3%, and 3.5%. The results showed that concentration of porang glucomannan had an effect on the sensory and physical characteristics of shirataki noodles. The shirataki noodles with a concentration of 3% porang glucomannan were the most preferred by the panelists. The physical characteristics of shirataki noodles with higher concentrations of porang glucomannan have higher tensile strength, elongation, hardness, and whiteness. Shirataki noodles with 3% porang glucomannan concentration had water content of  $98.04 \pm 0.08\%$ , ash content  $0.13 \pm 0.00\%$ , fat content  $0.019 \pm 0.000\%$ , protein content  $0.123 \pm 0.003\%$ , carbohydrates by difference  $1.693 \pm 0.075\%$ , calories  $105.840 \pm 29.799$  cal/g, and pH  $8.72 \pm 0.01$ . Shirataki noodles with concentration of 3% porang glucomannan is included in the category of low-calorie foods.

Keywords: shirataki noodles, glucomannan, porang tubers

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