

## **EVALUASI DESAIN KEMASAN PLASTIK TERHADAP SYARAT MUTU TEMPE KEDELAI BERDASARKAN SNI 3144 : 2009 DI INDUSTRI TEMPE MURNI UD SUPER DANGSUL BANTUL YOGYAKARTA**

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### **INTISARI**

UD. Super Dangsul merupakan industri yang bergerak dibidang pengolahan kedelai yaitu tempe. Tempe merupakan makanan asli Indonesia yang memiliki nilai gizi yang tinggi tetapi memiliki kekurangan yaitu masa simpan yang pendek yaitu kurang lebih 3 hari sehingga memerlukan pengemasan khusus untuk menjaga kualitas tempe. Maksud dari penelitian ini adalah untuk melakukan penilaian terhadap kemasan pada tempe yang digunakan dihubungkan dengan syarat mutu tempe kedelai berdasarkan SNI 3144:2009.

Penelitian ini dilakukan untuk mengetahui karakteristik, jenis, dan sifat kemasan yang digunakan dan pengaruhnya terhadap kualitas dan daya tahan tempe berdasarkan SNI 3144:2009. Pengujian terhadap kemasan dilakukan dengan pengukuran permeabilitas dan WVTR kemasan. Pengujian terhadap produk dilakukan dengan sampel tempe hari 1, hari 2, dan hari 3 dengan pengujian organoleptik menggunakan metode uji kesukaan, pengukuran nilai Aw dengan aqualab, pengukuran kadar air dengan metode oven, pengujian koliform, dan pengujian Aw.

Hasil evaluasi terhadap desain kemasan plastik yang digunakan berjenis *Polyethylen* memiliki ketebalan 0,2mm, WVTR sebesar 2,95 g/m<sup>2</sup>/hari, dan permeabilitas sebesar 0.0296 g H<sub>2</sub>O.mm/kPa.s.m<sup>2</sup>. Pengukuran bakteri koliform pada hari pertama belum melewati standar kemudian terjadi peningkatan pada hari kedua dan ketiga yang melewati standar. Pengujian organoleptik dengan atribut aroma, warna, dan rasa selama 3 hari masa penyimpanan masih dapat diterima konsumen. Pada pengukuran kadar air selama 3 hari masa penyimpanan tidak melebihi standar. Pada pengujian a<sub>w</sub> tempe selama 3 hari masa penyimpanan melebihi standar literatur.

(Kata kunci : Evaluasi, Kemasan, Plastik, Mutu Produk, Tempe Kedelai, SNI)

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**EVALUATION OF PLASTIC PACKAGING DESIGN OF SOYBEAN  
UNDER THE TERMS OF TEMPE QUALITY ISO 3144: 2009 IN THE  
TEMPE INDUSTRY UD PURE SUPER DANGSUL BANTUL  
YOGYAKARTA**

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**ABSTRACT**

UD. Super Dangsul is an industry produce fermented soybean cake called tempe. Tempe is an authentic Indonesian food that has a high nutritional value but has a short shelf life of less than three days. Therefore there is a need for special packaging to preserve the quality of tempe. The purpose of this study was to assess Tempe packaging related with the quality requirements of soybean tempe stated by ISO 3144: 2009.

This research was conducted to determine the characteristics and type of the package used and its effect on the quality and durability of tempe based on ISO 3144: 2009. Tests on the package was done by measuring the permeability and WVTR packaging. Tests on samples of products were carried out with tempe at first day, second, and third day respectively with organoleptic testing using test methods A. Water activity  $a_w$  was conducted with AQUALAB measurement of water content with the oven method as well as coliform testing.

Packaging material that is used by UD. Super Dangsul is polyethylene which has a thickness of 0,2mm, WVTR of 2.95 g / m<sup>2</sup> / day, and the permeability of 0.0296 g H<sub>2</sub>O.mm/kPa.s.m<sup>2</sup>. Testing tempe based on quality requirements SNI 3144: 2009. Coliforms measurement showed that on the first day the value has not gone above the standards then increased in the Second day and finally was above the standard in the third day. On the other hand, organoleptic attributes aroma, color, and flavor during the 3-day storage period can still be acceptable to consumers. Measurement of moisture content during the three day storage period did not exceed the standard. While  $a_w$  of tempe for three days storage period exceed the standard literature.

(Keywords : Evaluation, Packaging, Plastic, Products Quality, Soybean Tempe, SNI)

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