

## ABSTRACT

### **THE EFFECT OF CARBOPOL 940 CONCENTRATION ON THE PHYSICAL CHARACTERISTICS OF COCONUT COIR EXTRACT PEEL- OFF GEL MASK PREPARATIONS (*Cocos nucifera* L.)**

**Nur Afifah**

*Herbal plants are known to have compounds that are useful for preventing, curing disease, and preventing attacks by insects and fungi or bacteria. Herbal plants such as coconut coir (*Cocos nucifera* L.) have secondary metabolite compounds that can be used as antibacterials. The aim of this research was to determine whether coconut coir extract (*Cocos nucifera* L.) could be formulated into a peel-off gel mask, and to determine the effect of different concentrations of Carbopol 940 on the physical characteristics of the mask. Making a peel off gel mask from coconut coir extract (*Cocos nucifera* L.). This research method is experimental. In this study, coconut coir extract (*Cocos nucifera* L.) was formulated in the form of a peel-off gel mask with varying concentrations of Carbopol 940, 0.75%, 1% and 1.25%. The physical property tests carried out are organoleptic tests, homogeneity tests, pH tests, spreadability tests, and dry time tests. The data obtained was then processed using SPSS 25 software. The results showed that the pH test results obtained were ( $F1 = 5,04 \pm 0,11$ ), ( $F2 = 4,73 \pm 0,05$ ), ( $F3 = 4,71 \pm 0,05$ ), spreadability test results were ( $F1 = 6,8\text{cm} \pm 0,1$ ), ( $F2 = 6,3\text{cm} \pm 0,21$ ), ( $F3 = 6,2\text{cm} \pm 0,15$ ), and dry time test results ( $F1 = 20,60\text{minute} \pm 0,47$ ), ( $F2 = 19,60\text{ minute} \pm 0,44$ ), ( $F3 = 19,37\text{ minute} \pm 0,18$ ). Based on the peel off gel mask preparation, coconut coir extract (*Cocos nucifera* L.) with different concentrations of Carbopol 940 had no effect on the organoleptic test and homogeneity test, but had an effect on the pH test, spreadability test and homogeneity test. dry time test. Meanwhile, at Carbopol pH 940, the higher the concentration, the more acidic it is, and the higher the spreadability of the concentration, the lower the spreadability value of the preparation, and when dry, the higher the concentration, the faster the drying.*

*Keywords : Coconut coir extracts, Carbopol 940, Physical characteristic, peel-off*