

## INTISARI

Kekasaran permukaan pada *tissue conditioner* dapat menciptakan lingkungan untuk mikroorganisme rongga mulut serta dapat mempercepat kerusakan *tissue conditioner*. Minyak atsiri jahe memiliki komponen yang dapat mempengaruhi kekasaran permukaan *tissue conditioner*. Tujuan penelitian ini untuk mengetahui pengaruh minyak atsiri jahe konsentrasi 15% terhadap kekasaran permukaan *tissue conditioner*.

Penelitian ini menggunakan *tissue conditioner* dan 15% minyak atsiri jahe (*Zingiber officinale* Rosc.) yang berjumlah 24 sampel dan terdiri dari 4 kelompok yaitu kelompok *tissue conditioner* dengan penambahan 15% minyak atsiri jahe perendaman 1 hari dan 7 hari dan kelompok kontrol perendaman 1 hari dan 7 hari. Semua sampel direndam di dalam akuades dan di inkubasi didalam inkubator dengan suhu 37°C. Kekasaran permukaan diuji menggunakan profilometer.

Hasil penelitian menunjukkan nilai kekasaran permukaan terendah yaitu pada kelompok dengan penambahan minyak atsiri jahe perendaman satu hari. Hasil uji anava dua jalur yaitu ( $p < 0,05$ ) yang menunjukkan adanya perbedaan bermakna pada masing-masing kelompok terhadap kekasaran permukaan *tissue conditioner*. Hasil uji *Post-hoc LSD* menunjukkan perbedaan bermakna ( $p < 0,05$ ) antar kelompok. Kesimpulan penelitian ini yaitu penambahan 15% minyak atsiri jahe (*Zingiber officinale* Rosc.) pada *tissue conditioner* berpengaruh dalam menurunkan kekasaran permukaan *tissue conditioner*.

Kata kunci: Kekasaran Permukaan, *Tissue Conditioner*, *Zingiber officinale* Rosc.

## ABSTRACT

The surface roughness of tissue conditioner can create an environment for oral microorganisms and can accelerate the breakdown of tissue conditioner. Ginger essential oil has components that can affect the surface roughness of the tissue conditioner. The purpose of this present study was to determine the effect of 15% ginger essential oil on the surface roughness of tissue conditioner.

This study used tissue conditioner and 15% ginger (*Zingiber officinale* Rosc.) essential oil, with a total of 24 samples and consisted of 4 groups, namely the tissue conditioner group with the addition of 15% ginger essential oil that was immersed for 1 day and 7 days and the control group that was immersed for 1 day and 7 days. All samples were immersed in distilled water and incubated in an incubator at 37°C. The surface roughness was tested using a profilometer.

The result of this study showed that the lowest surface roughness value was shown in the group with the addition of ginger essential oil which was immersed for one day. The result of the two-way ANOVA ( $p < 0.05$ ) showed that there was a significant difference in each group on the surface roughness of the tissue conditioner. The result of the post-hoc LSD showed that there was a significant difference ( $p < 0.05$ ) between groups. Based on the result of this study, it can be concluded that the addition of 15% ginger (*Zingiber officinale* Rosc.) essential oil has an effect on reducing the surface roughness of the tissue conditioner.

**Keywords:** Surface roughness, Tissue conditioner, *Zingiber officinale* Rosc.