

Tinjauan Pustaka: Perubahan Warna pada Resin Akrilik *Heat Cured*

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ABSTRAK

Latar Belakang: Resin akrilik (*polymethyl methacrylate*) adalah suatu polimer sintesis yang terbuat dari resin dan merupakan rangkaian panjang dari monomer-monomer *methyl methacrylate*. Kekurangan dari Resin akrilik adalah mudah menyerap air yang terjadi pada celah-celah interpolimer. Hal ini menimbulkan efek nyata pada sifat fisik dan mekanis polimer, seperti penurunan kekuatan fleksural, kekuatan impak, kekerasan dan perubahan warna. **Tujuan:** Mendeskripsikan perubahan warna pada resin akrilik *heat cured* yang dipengaruhi oleh waktu dan jenis larutan dengan cara perendaman. **Metode:** Penelitian *literature review* dengan pendekatan *systematic review*. Sumber data adalah data sekunder (artikel ilmiah terpublikasi) yang dikumpulkan dari bulan Januari 2015 sampai dengan Desember 2020. Analisis data menggunakan *annotated bibliography*. 79.821 artikel ilmiah melalui tahapan penyaringan berupa *identification*, *screening*, dan *eligibility*. **Hasil:** Jenis makanan dan minuman seperti *black tea*, *green tea*, *sour cherry juice*, *coke (cola, lemon based soft drink, Pepsi®)*, *coffee*, *orange juice*, *red wine*, dan kunyit, bahan pembersih gigi tiruan seperti larutan *NaOCl 0,5%*, *alkaline peroxide*, *Fittydent*, *Dentipur*, larutan *peracetic acid 0.2%*, *tablet Corega*, *Polident*, *Stain-Away Plus*, *Clinsodent*, serta pewarna makanan seperti *Sunset Yellow*, *Erythrosine*, dan *Tartarizine* dapat mempengaruhi stabilitas warna dari resin akrilik *heat cured*. **Kesimpulan:** Berbagai jenis makanan-minuman, bahan pembersih gigi tiruan, serta pewarna makanan dapat menyebabkan perubahan warna pada resin akrilik *heat cured* dengan penggunaan dalam jangka waktu lama.

Kata kunci: resin akrilik *heat cured*, perendaman, makanan, larutan pembersih gigi tiruan, perubahan warna.

Literature Review: Perubahan Warna pada Resin Akrilik Heat Cured

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ABSTRACT

Background: Acrylic resin (polymethyl methacrylate) is a synthetic polymer made of resin and is a long series of methyl methacrylate monomers. The disadvantage of acrylic resin is that it easily absorbs water which occurs in the interpolymer gaps. Consequently significant effect on the physical and mechanical properties of the polymer, such as decreased flexural strength, impact strength, hardness and discoloration. **Objective:** To analyze the color change in heat cured acrylic resin based on time and type of solution by immersion. **Method:** A literature review study with a systematic review approach. The data source is secondary data (published scientific articles) collected from January 2015 to December 2020. Data analysis used annotated bibliography. 79,821 scientific articles through the screening stages in the form of identification, screening, and eligibility. **Results:** Kinds of food and beverages such as black tea, green tea, sour cherry juice, coke (cola, lemon based soft drink, Pepsi®), coffee, red wine, orange juice, and turmeric, denture cleaning agents such as 0.5% NaOCl solution, alkaline peroxide, Fittydent, Dentipur, 0.2% peracetic acid solution, Corega tablets, Polident, Stain-Away Plus, Clinsodent, and food coloring such as Sunset Yellow, Erythrosine, and Tartarizine can affect the color stability of heat cured acrylic resin. **Conclusion:** Various kinds of food-drink, denture cleaning agents, and food coloring moreover discoloration of heat cured acrylic resin with prolonged use.

Keywords: heat cured acrylic resin, immersion, food, denture cleaner, change colour