Pengaruh ketebalan komposit resin serat pendek dan waktu penyinaran terhadap kekerasan dan Depth of Cure = Effect of Short Fibre-Reinforced resin composite thickness and curing time on the hardness and depth of cure

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Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh ketebalan komposit resin serat pendek KRSP dan waktu penyinaran terhadap kekerasan dan depth of cure DoC. Dua puluh empat spesimen KRSP EverX PosteriorTM berbentuk silinder berdiameter 6 mm, dibagi menjadi dua kelompok ketebalan: 4 dan 5 mm n=12. Setiap kelompok ketebalan disinar dengan jarak 2 mm, iradiansi 800 mW/cm2 selama 25 dan 30 detik n=6. Nilai kekerasan diukur dengan uji Vickers dan DoC didapatkan dengan menghitung rasio kekerasan permukaan atas dan bawah KRSP. Data dianalisis menggunakan uji One-way ANOVA. Disimpulkan ketebalan dan waktu penyinaran mempengaruhi kekerasan dan DoC KRSP sebagai substruktur.
.....This study aims to analyze the effect of short fibre reinforced resin composite SFRC thickness and curing time on the hardness and depth of cure DoC. Twenty four specimens of SFRC EverX PosteriorTM were made and formed into cylindrical shapes with 6 mm in diameter, divided into two different thickness groups 4 and 5 mm n 12. Each thickness group were cured with 2 mm light curing distance, irradiance 800 mW cm2 for 25 and 30 seconds n 6. The hardness was measured by Vickers test and depth of cure was obtained by calculating the hardness ratio of the bottom to the top surface. Data were analyzed statistically by One Way ANOVA tests. It was concluded that thickness and curing time has significant effect on the hardness and DoC of SFRC as substructure.