Pengaruh ketebalan komposit resin serat pendek dan iradiansi terhadap kekerasan dan depth of cure = Effect of short fibre reinforced resin composite thickness and light-curing irradiance on hardness and depth of cure

Karen Pungki Hardiyanti, author

Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh ketebalan komposit resin serat pendek KRSP dan iradiansi terhadap kekerasan dan depth of cure DoC. Dua puluh empat spesimen KRSP berbentuk silinder berdiameter 6 mm dibagi menjadi 2 kelompok ketebalan; 4 dan 5 mm n=12. Masing-masing kelompok dibagi menjadi 2 kelompok yang dipolimerisasi dengan iradiansi berbeda; 1000 dan 1200 mW/cm2 n=6. Setiap spesimen dipolimerisasi selama 20 detik dengan jarak penyinaran 2 mm. Nilai kekerasan didapat melalui uji kekerasan Vickers dan DoC didapat dengan mengukur rasio kekerasan permukaan bawah terhadap permukaan atas. Data dianalisis menggunakan uji statistik One-Way ANOVA. Hasil penelitian menunjukkan adanya perbedaan signifikan.

.....This study aims to analyze the effect of short fibre reinforced resin composite SFRC thickness and light curing irradiance on the hardness and depth of cure DoC . Twenty four specimens of SFRC were made into cylindrical shape with a diameter of 6 mm and divided into 2 different thickness groups 4 and 5 mm n 12. Each group was divided into another 2 different groups which was cured by different irradiance 1000 and 1200 mW cm2 n 6 . Each specimen was cured for 20s with 2 mm light curing distance. The hardness was measured by Vickers hardness test and DoC was measured by calculating a hardness ratio of the bottom to the top surface of specimens. Data were analyzed statistically by One Way ANOVA tests. The result showed significant differences.