P27 Comparative study of strain changes of P-90 and Z-250 during light curing

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Introduction

As a part of an effort to minimize the polymerization shrinkage which is considered to be a major cause of failed bonds to tooth, low polymerization shrinkage products were required in dental clinics.

Objectives

The purpose of this study was to compare the changes of polymerization shrinkage of P-90 and Z-250 using strain gauges.

Material and methods

Newly developed and released product P-90(3M ESPE) was used and Z-250(3M ESPE) was used as control.
The strain measured by TML foil type strain gauge (FLA-1-11-1L, Tokyo Sokki Kenkyujo Co., Japan) and strain gauge logger(TC-31K, Tokyo Sokki Kenkyujo Co., Japan).
Analyses were performed on the changes of strain which have occurred during the polymerization process.

Results

The changes of polymerization shrinkage of P-90 and Z-250 during the polymerization process were similar.

Conclusion

P-90 seems not reduce the polymerization shrinkage significantly.