

## POSS® for Thermosets - Case Study

### Nanoreinforced® dental coatings and adhesives - Improved durability with turnkey utility

#### Problem:

While effective, existing materials used for dental coatings and adhesives have some difficulties:

- Poor match to tooth structure
- Lengthy preparation and cleanup
- Tooth sensitivity after procedure

#### POSS® works with tooth structure and provides increased chemical stability

When a tooth needs repair, often the ends of the dentin fibers remain unfilled, leading to tooth sensitivity. The nanoscopic size of the POSS® molecules provides a structural continuum with natural tooth & relieves sensitivity. In addition to patient satisfaction, dentists like these materials because there is less work involved as some of the preparation and cleanup steps are eliminated.

Even after application, POSS® chemicals help these dental materials shine. The improved hydrophobicity and chemical stability help the POSS® enhanced materials to resist staining and degradation, even in the harsh environment of the mouth.

And POSS® chemicals only needed to be added to the existing dental formulations to see improvements. No changes in manufacturing process were necessary.

