BEAUTIFIL Bulk Flowable is an advanced giomer restorative

By Shofu Staff

- Bulk fill resin-based composites are continuing to evolve and improve in terms of quality and esthetics, but despite their growing recognition, many dentists continue to be wary of embracing these newly emerging products.

- Recent research shows their performance has proven to be comparable to traditional multi-increment resin-based composites. So why not switch?

- Obvious advantages are available with bulk filling, including faster technique, fewer incremental steps that allow easier placement and potentially less voids because of mass placement.

- However, on the opposite side of the spectrum, there could be more voids present because of lack of control when the material is placed at one time.

- Adequate contact, shrinkage stress and polymerization in the deepest portions of the restoration are additional challenges that have made many dentists concerned. Such complications can result in serious consequences, including debonding of restorations, marginal gaps, discoloration, recurrent caries and patient discomfort because of post-operative sensitivity.

- Thanks to advances in technology, dental professionals are now being offered a new alternative – BEAUTIFIL® Bulk Flowable, a bulk fill material with an innovative filler technology that addresses these legitimate concerns.

**Preventative properties**

Shofu’s new BEAUTIFIL Bulk Flowable incorporates giomer, surface pre-reacted glass filler particles (S-PRG), known to provide continual fluoride release and high recharge when fluoride concentrations are present in the mouth.

In addition to fluoride, S-PRG filler also releases five other ions: sodium, strontium, aluminum, silicate and borate, all with known bioactive properties.

When exposed to concentrations of lactic acid, these ions contribute to an acid neutralization effect, helping to reduce the occurrence of secondary caries and extend the life of the restoration.

**Depth of cure**

The giomer (S-PRG) filler particles in BEAUTIFIL Bulk Flowable provide an ideally balanced light diffusion and transmission effect that allows the material to be completely light cured up to 4 mm of depth without being too translucent, a known shortfall of other bulk fill composite material.

These unique optical characteristics are derived from the tri-laminar structure of the S-PRG filler.

Incoming light goes through the glass core but scatters on the surface, allowing an outstanding depth of cure and an opacity that matches the surrounding tooth structure. Finally, there is a material that can have both complete depth of cure and anesthetic, natural look when placed in the patient’s mouth.

**Polymerization shrinkage and shrinkage stress**

The varied particle sizes of giomer filler allows a dense distribution within the resin matrix, thus a higher filler load with low viscosity can be achieved with BEAUTIFIL Bulk Flowable (72.5 width percent and 51.0 volume percent), which helps to reduce polymerization shrinkage and shrinkage stress.

Test results reveal that BEAUTIFIL Bulk Flowable has the lowest shrinkage stress among its leading competitors. Lower shrinkage stress can help to prevent post-operative sensitivity, marginal leakage and secondary caries.

**Mechanical properties**

BEAUTIFIL Bulk Flowable was cut and tested at 1 mm up to 4 mm depths to measure the Vickers Hardness number. The results showed more than 90 percent hardness at the top surface of each point, outperforming competitive products, according to Shofu, and also showed excellent curing properties to ensure complete polymerization when filled in 4 mm increments.

- The material exhibited impressive flexural and compressive strength and high radiopacity to enable accurate diagnosis, according to the company.

**Self-leveling feature**

A fast, simple placement procedure is enhanced with self-leveling properties for ideal adaptation in deep cavities, according to Shofu. The BEAUTIFIL Bulk Flowable self-leveling feature reduces the need to manipulate material and further contributes to the faster and easier placement technique associated with bulk fill restoratives.

**The choice is yours**

BEAUTIFIL Bulk Flowable addresses dental professionals’ concerns and overcomes the challenges associated with the bulk fill materials that were first introduced.

Combining bioactive benefits of giomer, low shrinkage stress, high depth of cure and an easy placement technique, BEAUTIFIL Bulk Flowable is the new giomer bulk fill restorative you can trust.

Here in Boston

Stop by the Shofu booth, No. 1229, for a live demonstration of BEAUTIFIL Bulk Flowable.

![Scan here to view live demonstration of giomer filler neutralizing lactic acid on contact.](image)