**Fiber composition**

**Q. Why are DT Post® and Logipost® ISO now made from E-glass in a UDMA resin?**

**A.** Between 2001 and 2007, the 2nd generation Synca DT Post® was made from a Quartz glass in an epoxy resin. At that time, a manufacturer using quartz glass/epoxy resin offered superior fracture resistance and resistance to breakdown in cyclical fatigue testing over other manufacturers.

By 2004, CRA testing showed that another post manufacturer using E-glass in a UDMA resin exhibited the best fracture resistance overall. In this 2004 CRA study, all esthetic fiber posts are classified together as glass fiber and exhibited the following physical properties:

<table>
<thead>
<tr>
<th>Post Brand</th>
<th>Force required to break post (newtons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT Post® (Synca)</td>
<td>133*</td>
</tr>
<tr>
<td>Light Post® (RTD)</td>
<td>117</td>
</tr>
<tr>
<td>Parapost White®</td>
<td>99</td>
</tr>
<tr>
<td>Snow Post®</td>
<td>74</td>
</tr>
</tbody>
</table>

*This test was completed on an earlier version; new version exhibits the same physical properties but is more radiopaque.

In addition, an important cyclical fatigue study published in Dental Materials showed that only 2 post manufacturers, namely the 2nd generation and 3rd generation fiber posts sold by Synca, were able to produce posts that resisted over 2,000,000 cycles of fatigue.

All other brands (including: ParaPost Fiber White™, FibreKor™, Luscent Anchors™ and Snowpost™) failed.

To offer continual progress to our clients, Synca DT Post® is now made from the E-glass/UDMA resin matrix. This maintains all the benefits of the 2nd generation product, while offering several advantages (listed on the back).

Some sellers of Quartz glass posts would want you to believe that Quartz posts are better, but this is simply not backed up by independent research.

(continue...)
Q. What is the difference between Quartz Glass and E-Glass?

A. Both these glasses are used in a variety of applications and have the same main ingredient: SiO₂. With respect to dental posts, performance is not related at all to the type of glass used. It is relative to the combination of glass fiber/resin matrix and the processes used in manufacturing.

Q. What are the other advantages of Synca DT Post* (2007)?
(Logipost* ISO is made of the same material as DT Post*)

A.

**Higher radiopacity:**
It is possible to make DT Post* considerably more radiopaque than epoxy posts.

**Higher bonding with self-adhesive cements:**
A recent study undertaken by the University of Toronto compared an epoxy resin post against DT Post*. DT Post* offered statistically superior bond to self-adhesive cements.

**No need to prepare surface for bonding/resin cement:**
The subsequent U of T study then evaluated different surface treatment processes and their affect on bond strength. DT Post* achieved the same high bond strength without the need for surface preparation.

Previous studies with Quartz glass/Epoxy posts showed that surface treatment (H₂O₂ and Silane) was necessary to achieve highest bond strengths.

**Biocompatibility:**
UDMA resin has been shown in numerous studies to be extremely biocompatible with very low toxicity. Studies on Epoxy show varying results.