

### 1. How heat resistant is the translucent wire as soldering extensions is needed at times.

The wire is able to withstand up to 120°C (248 F). However, soldering in the vicinity of the wire is strictly not recommended. Re-soldering in cases of repair at the Adam's clasps is achievable as it is a safe distance away from the ASTICS™ wire. To minimize heat conduction through the metal wire extensions during soldering, always coat the surrounding areas with Anti-flux.

### 2. What grade of stainless steel wire are the metal connectors?

304 Stainless Steel

### 3. What is the wire diameter of the metal and translucent wire?

The ASTICS™ wire has a nominal diameter of 0.033-inch, whereas the metal wires are 0.036-inch.

### 4. How much extra material will be supplied as appliances sometimes need to be remade?

At present each kit consists of 1 uncured ASTICS™ wire and 2 metal connectors. Uncured ASTICS™ wires will be made available for purchase to allow for remakes.

### 5. Is the translucent labial bow replaceable? If so, the replacement mechanism must be complex enough to prevent adjustment by the patient.

The present design does allow for replacement of the labial bow with the use of a drill. However, BioMers is working with clinicians to develop a removable clasp for the wire.

### 6. How long is the working time?

Once exposed to light, the uncured ASTICS™ wire should be formed and set in 30 minutes.

### 7. Can the shape and form of the labial bow be adjusted?

The ASTICS™ wire allows adjustment to its shape and form only before it is cured. After it is cured, it becomes rigid and nonadjustable. Any further adjustments to the fit can be done at chair side by adjusting the U-loops.

### 8. What if difficulty is faced when inserting the ASTICS™ wire into the metal connectors?

Use silicon carbide grinding paper to hand grind the tips of the ASTICS™ wires to smooth the edges. This should make insertion easier.

### 9. How closely can the wire be adapted to the teeth?

In its uncured state, the ASTICS™ retainer wire is highly flexible and is only limited by the sheath covering. Hence the wire can be formed to be close fitting to the labial surfaces and can accommodate slightly misaligned teeth.

### 10. Can steam be used to remove the drops of wax from the cured ASTICS™ wire?

Yes, as long as exposure to steam is not excessive.

### 11. Can there be crossovers?

There should be NO crossovers done with the ASTICS™ wire. Crossovers should only be attempted with the metal connectors when necessary.

### **12. How strong is the bond strength between the ASTICS™ wire and the metal wire?**

The epoxy-based adhesive used to bond the ASTICS™ wire to the metal connector is especially formulated for achieving excellent adhesion between stainless steel and plastics. The epoxy was specifically designed for bonding stainless steel cannulae into hubs, syringes and lancets for needle assemblies. Hence the epoxy is able to provide a strong bond despite a small surface area.

### **13. Will the wire yellow with time?**

Extensive real environment testing has been done on the ASTICS™ wire. It was subjected to conditions found within the mouth and immersed in concentrated solutions of coffee, tumeric, etc. for extended periods of time with no ill effect.

### **14. Is there an alternative way to remove the sheath?**

The sheath can be removed by means of a sharp thin blade. However, BioMers recommends the use of a heat knife, which efficiently and safely removes the sheath covering.

### **15. Will the ASTICS™ wire wear down porcelain veneers?**

The ASTICS™ wire is non-abrasive and will not wear down veneers.