PRS PROSTHETICS RESEARCH SPECIALISTS, INC.

Specialists In Custom Cosmetic Restoration For The Amputee

Lamination Layups

PRS Socket 1	PRS Socket 2	PRS Socket 3
K-1	K-2 and K-3	K-4
2 Nylon Stockinette or Multisize	2 Nylon Stockinette or Multisize	2 Nylon Stockinette or Multisize
4 Nyglass	2 Nyglass	2 Spectracarb or 1 carbon braid
2 Nylon Stockinette or Multisize	2 Nylon Stockinette or Multisize	Carbon Cap to attach pyramid
Carbon Cap to attach pyramid	2 Nyglass	Carbon Struts
No carbon Struts	Carbon Cap to attach pyramid	2 Nylon Stockinette or Multisize
	Carbon Struts if needed	2 Spectracarb or 1 carbon braid
	2 Nyglass	2 Nylon Stockinette or Multisize
	2 Nylon Stockinette or Multisize	

**Spectracarb and Multisize are Products of Comfort Products.

No felt is used in our layups for standard sockets

For the most consistent finished socket, do not twist fabric distally. Instead, sew your fabric and do not stack the seams right on top of each other. We do side by side seams instead.

Carbon cap can either be a short section of braid to cover and wrap around the distal attachment device for the socket or carbon tape to overlap the distal attachment.

Use of Fiberglass Roving can greatly increase your attachment strength as well.

Carbon struts are constructed by placing 2 equal size carbon tape side by side laying flat, inside of a Sleeve of Nyglass Stockinette and folding over.

The above layups are recommended using the E-R Resin System. It is a true Epoxy resin that has the strength required to achieve the lightest, strongest socket available. Be sure to test all layups to be sure that they meet your requirements.

Do not use spray adhesive in any way to hold your carbon tape in place. All spray adhesive does is to seal the surface and keep any resin from saturating the fabric.

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- Any socket can be added to by placing additional layers into it and Carbon tape or Braid can be placed in areas requiring additional strength.
- Using the carbon ONLY in areas that will not be ground into will greatly lower the expense of carbon, and decrease the health hazards associated with breathing in the carbon while grinding or sanding the edges.
- E-R Resin is mixed at a 10 to 4 ratio. 10 parts resin to 4 parts hardener.
- Additional hardener will not affect setting time, too little will not allow it to set at all
- 2% pigment of our PRS Flesh Color System will match our skin colors.
- No Moisture barrier needed for a wet cast with E-R Resin. Laminate with no worries about your inner socket. You still need a PVA bag as a separator.
- No PVA bag is needed if you are laminating directly over a flexible inner socket. Be sure and test this on your particular material as plastics do change. On most of the common ones used today, there is no need for the PVA separator.
- You can touch up a lamination after it's set by mixing a small batch and brushing it on or filling in an area that did not saturate inside.
- There is no shelf life on E-R Resin as long as the caps are on the bottle. It will not set up until the correct amount of hardener is blended in.

Costs Benefits of E-R Resin

- You get 1 Gallon of E-R Resin and 2 Quarts of Hardener with each kit. It Makes 1 ½ Gallons of finished product for you. No more wasted tubes of hardener. Or running out and needing to order more hardener.
- Due to the high strength of the resin, you will use less fabric to make a comparable socket. Less fabric means less resin used per lamination.
- Either eliminate the need for carbon, or greatly reduce the use of carbon to make a strong ultra light weight socket. Always follow your organizations choice of using carbon for attachments.
- By laminating with struts instead of carbon braid, you have much less waste in a socket.
- No need to rough up the first lamination before relaminating so all of the labor involved is savings. Plus the cost of the sand paper sleeves.
- No sealer on a wet cast. Think of the time and expense saved here.
- No putting carbon where you grind saves you money and the health hazards associated with the grinding and sanding of the edges.