



Use equal amounts of Coyote Composite in place of carbon fiber in your existing layups and make sure to reinforce your distal end with carbon fiber tape, or you can try one of these sample layups.

## Coyote® Composite sample lay-ups PROSTHETICS

### Pigment layup with Epoxy Resin: Standard Lamination

- 1) 2 layers of Flex-stretch
  - 2) Reinforce with at least 2 strips of carbon tape over distal end.
  - 3) Cover distal third with one layer Coyote Composite, tie over connector then reflect over full socket.
  - 4) 2 layers of Nylon Stockinette
  - 5) 2 layers of Flex-Stretch
  - 6) 2 layers of vacuum/finishing nylons
- Note: For heavy duty layup add 1 extra layer of Coyote Composite

### Non pigment (Carbon finish look with Coyote Composite) layup with either resin type:

- 1) 2 layers vacuum / finishing nylons
  - 2) 1 layer Coyote Composite
  - 3) Reinforce with at least 2 strips of carbon tape over distal end.
  - 4) 2 layers Nylon Stockinette
  - 5) 1 layer Coyote composite
  - 6) 1 layer vacuum nylon
- Note for heavy duty layup ad 1 extra layer of Coyote

### Pigment Layup with Acrylic Modified Epoxy Resin:

- 1) 2 layers of flex-Stretch
  - 2) Reinforce with at least 2 strips of carbon tape over distal end.
  - 3) 2 layers of Coyote Composite
  - 4) 2 layers of Nylon Stockinette
  - 5) 2 layers of Flex-Stretch
  - 6) 2 layers of vacuum / finishing nylons
- Note: For heavy duty layup add 1 extra layer of Coyote Composite.

## Attention

Adding carbon tape over distal connector should be used for added reinforcement.

When using a drop-in lock pay special attention to reinforcing your layup.

For an ultra lightweight and more flexible socket remove the stockinette from the layup.

Fuzzy edges or a gold colored socket with no pigment is an indication the layup is starved and the lamination should **NOT** be used.

## ORTHOTICS

### AFO – using Acrylic Modified Epoxy Resin

- 1) Flexastretch nylon reflected (two layers total)
- 2) Use one Coyote Composite Braid that is the right size for the calf section above the malleolus and slightly over the calcaneus
- 3) Lay Coyote Composite Braid along the foot plate and over the calcaneus
- 4) Reinforce your met head area and foot with carbon tape.
- 5) If needed use 1" wide carbon tape or 1" wide fiberglass tape across the heel and down past the malleolus for reinforcement.
- 6) Use one Coyote Composite Braid that is the right size for the calf section above the malleolus and slightly over the calcaneus
- 7) Lay Coyote Composite Braid along the foot plate and over the calcaneus
- 8) Nylon stockinette reflected (two layers total)
- 9) Flexastretch nylon reflected (two layers total)
- 10) For a smoother

### AFO Heavy Duty – using Acrylic Modified Epoxy Resin

- 1) Follow previous lay-up, but add another layer of Coyote Composite Braid over the whole brace, same technique as #2 and #3 in previous AFO layup instructions.\*
  - 2) If you're using Epoxy Resin (ER Resin) instead of Acrylic Modified Epoxy Resin follow steps 1 – 10 for a heavy duty AFO.\*
- \*This depends on patient weight and activity level on which technique to use one or two.

## Tech Tips on back – Tips on vacuum, resin and layup with Coyote Composite

It is the responsibility of the practitioner and or technician to determine specific lay-ups, materials, amounts, and design based on the patient weight, activity level, and specific activities that is best for the patient. Any recommendation for lay-up methods are guidelines, not specifically designed for particular patients. Coyote Design® does not have knowledge of specific patient information or knowledge of customers specific fabrication techniques and capabilities.

# TECH TIPS

## – Vacuum & Resins with Coyote Composite

Tips on vacuum, resin and lay-up



We typically use two layers of basalt, with basic nylon stockinette in different order depending on the finish, and carbon tape over the distal end.



Epoxy resin run full vacuum at 20 to 24 in/HG until everything is saturated and cured.



Acrylic modified epoxy resin run full vacuum at 20 to 24 in/HG until everything is saturated. When done stringing and walking away turn vacuum down to 10 to 15 in/HG.



Very important to follow resin manufacturers instructions for proper measurements and mixing.



Epoxy resin manufacturers typically recommend a heat bag.

### Resins

Layups are effected by the type of resin used.

**Modified Acrylic;** thinner, easier to saturate, fast cure

**Epoxy Resin;** stronger, clearer, thicker, slower cure time

*Epoxy works well for heavier and more active people.*

### Lay-Ups

Use equal amounts of Coyote Composite in place of carbon fiber in your existing layups, or you can try one of Coyote's sample layups.

How you lay it up will also greatly change the strength weight and flexibility.

## – Finishing Edge Using Coyote Composite

Coyote Composite edges finish smoother and tend to be less jagged than carbon fiber.



Use the roughest sanding cone to take the edge down to the trim lines.



Use medium scotch bright wheel, buff outside to inside, inside to outside, smoothing and rounding off edges. when polishing and finishing Slow speed may give better results.



Finish with techra wheel. If you want more do a wet sand with scotch bright.

**Note:** Fuzzy edges or a gold colored socket with no pigment is an indication the layup is starved and the lamination should NOT be used.