# Composite Shoes: A good middle ground between barefoot and metal

by Daisy Bicking



Daisy is preparing a horse shoe EASY SHOE

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While most of us agree that barefoot is healthiest for the horse's foot, there are times when a horse might need a bit of additional protection, some support, or even mechanics that cannot be created through the trim. If you ever find your horse in this situation, I would recommend you consider composite horse shoes.

Out of all the horses in my hoof care practice, 20% are in composite shoes of one kind or another. For certain horses, I've found composite shoes are more successful than barefoot or barefoot and boots.

Composite shoes help with:

- increasing sole depth

- adding heel height when needed

- improving the health of the back of the foot

- creating ease of breakover for horses with arthritic conditions

- correcting foals with flexural deformities

- de-rotating hooves of horses with chronic laminitis

**FACTORS TO CONSIDER**

Some composite shoes can be glued on, while others require a few nails or hoof cast in addition to the glue to help hold the shoe on. Some can even be straight nailed depending on what the horse needs, the owner's preference, and the farrier's choice.

As with any tool, a composite shoe is only as good as the person who is applying it. Several factors should be considered:

- Trim application

- Foot preparation

- Shoe selection and placement

- Glue technique and timing

Some composite shoes are reusable, some are not, and they vary greatly in cost and time involved in application. Composite shoes should be pulled and reset as needed every 4-6 weeks on average; basically when the horse needs a trim.

Fortunately, most glue-on composite shoes accommodate a barefoot trim quite well. The glue will build and fill voids, for example, if you have scooped quarters in the foot. The foot still needs to be level, although it doesn't need to be flat as when you apply a metal shoe.

Remember that trimming is a subtractive process only. When we start applying shoes we are now adding to the foot. A composite shoe adds length and height three-dimensionally. It is very easy for the footprint to migrate forward if the shoe is applied to a long toe, or placed too far forward on the footprint. I aim to line up the widest part of the foot with the center of the shoe, measured from heel to toe. That way the footprint stays under the limb and will have appropriate heel support.

The application of a composite shoe may modify the balance of the foot, for good or bad. It is fairly easy to wedge a heel, or add height to a quarter with the glue-on process. Just make sure it is done intentionally.

**THE GLUE-ON PROCESS**

When glue is used, the most important component to keep the shoe on is foot preparation. Regardless of the type of glue used, whether acrylic glue like Equilox or urethane glue like Adhere, the foot must be appropriately clean and dry before shoe and glue application. Even though the two glues work very differently, foot preparation is the same. Depending on how rigorous the demands on the foot, some to all of these techniques will come into play:

- the foot is trimmed

- a wire brush removes dust and dirt

- a dremel tool removes any additional dirt and exfoliating material from the areas to be glued (heels, quarters, toe, etc.)

- re-application of the wire brush

- a butane torch dries the foot in the glue areas

- a hoof boot is used to keep the foot clean until glue and shoe are applied

***Tip:*** A moisture meter used for painting can be helpful in knowing whether the hoof is dry enough. The meter should read in the green, meaning quite dry, before glue is applied.

Many of the shoes available have frog support built into them. I like to pack the hoof with dental impression

material. This prevents dirt and debris from getting stuck under the shoe, and provides additional support to the frog and sole. Pour-in packing (e.g., Equipack) can also be used. I prefer to have more control over how much packing is applied in each section of the foot, which is easy to do with dental impression material, and not so easy with a pour-in.

To prevent thrush and fungus from growing under the shoe and padding, I use an antimicrobial hoof packing like Artimud, a clay based topical made by Red Horse Products, around the frog. I then like to apply dental impression material to the frog and sole as a last step before applying the shoe.

Like most projects, gluing composite shoes is 99% preparation and only 1% actually doing the task. If your farrier is diligent in preparation, applying the shoe is quite easy. The foot is trimmed, clean and frog packed with Artimud. Dental impression material is ready, and the shoe is standing by with glue ready.

The last component for successful composite shoeing is managing the glue timing. Most glues come as a two-part material that, when mixed, chemically reacts and bonds. The glue cure time is temperature dependent, taking more time on colder days, less on warmer days. Most glue has a cure time of 2-4 minutes. Some methods require the foot to be held up in the air, while others allow the foot to be immediately placed on the ground. Glue can be heated or cooled as necessary to facilitate the curing process. After the shoe is applied, and the foot is clean, adding a few nails or some hoof casting may be necessary.

**Shoe Selection**

With a whole slew of composite shoes out there, it may be hard to pick which ones work best for what situations. Shoes range from peripheral support direct glue, like the Polyflex, to full heart bar support like the bottom of a boot as in the EponaShoe. The new EasyShoe by EasyCare comes in several different styles, and also features a glue-on cuff in the quarters for ease of application and longevity of bond.

Composite glue-on shoes are a fantastic tool for farriers to have in their toolboxes to offer clients' horses when needed.

*Daisy Bicking, DEP, APF, CBT founded Daisy Haven Farm, Inc. in 2004, focusing on rehabilitation of the equine foot. Daisy maintains a busy farrier practice, teaches hoof workshops and offers certification through her School of Integrative Hoofcare. She has won awards for her work with laminitis and spoken at Cornell University, the International Hoof Care Summit, The Laminitis Conference and the International Lameness Prevention Conference. Daisy maintains a database of over 200,000 digital photographs and corresponding radiographs of the equine foot- capturing objective, measurable data over time. www.daisyhavenfarm.com*

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horse disease, laminitis, founder, horse injury

by Daisy Bicking



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