

Knife Kit Instructions

Recommended tools:

- Drill press with ¼” bit
- Bandsaw, jigsaw or coping saw
- 2 or 3 Clamps (C-type or spring)
- Belt sander

You will need:

- Two pieces of knife handle material approximately ¼” x 1¼” x 5”
- Epoxy (avoid the five-minute formulas -- the slower setting ones are stronger and more water resistant)

1. The blade is ***SHARP!*** Handle it carefully!
2. Wrap the entire length of the blade in masking tape to protect you *and* the blade from damage. Put an extra piece of tape along the edge. Leave the *tang* exposed.
3. Take wood movement into account when you select the material for your handle. The wooden parts of your handle, the *scales*, may shrink or swell with changes in ambient humidity. This instability can expose the edges of the handle portion of the steel blade, the *tang*, and may compromise the epoxy bond.

The wood for your handle should be hard, tight-grained and well seasoned. To minimize wood movement consider soaking the pieces in shellac or similar resin and allowing that to dry before proceeding. (Knife-making suppliers offer stabilized woods that have been impregnated with resin to prevent wood movement. They also offer many beautiful synthetic materials that are durable and immune to seasonal changes, such as *Micarta™* and *DymondWood™*.)

Orient your scales so that the surfaces you want to see face the outside. The inside surfaces should be sanded with 120-grit so that they are flat and the surface is rough for the epoxy. Mark the inside surfaces to avoid confusion later.

4. Carefully position one scale and clamp it in place. Using the hole in the tang as a guide, drill a ¼” hole through the scale (a drill-press is recommended).

Insert one of the dowel-pins to hold the scale in place.

To help everything stay in place, insert the pins as you go; once you drill a hole, insert a pin.

Trace the outline of the tang onto the scale.

Remove the clamps, flip the blade over and drill holes in the other scale and mark its outline the same way as above.

5. Use a bandsaw, jigsaw or coping saw to cut a rough profile following your marked lines.

6. The forward-facing (toward the tip of the knife) edges of the scales must be shaped to suit and finished *before* gluing the scales to the tang. You won't be able to shape or finish them after gluing

without damaging the blade. Use the pins to align the two scales and put them together (without the tang). Use clamps or a ¼” bolt and nut in the center hole to temporarily hold the two pieces together.

Shape the scales and sand/polish them to 400-grit.

At this time, you may also want to apply the finish that you plan to use, following that application with a coat of wax to keep the epoxy *squeeze-out* from sticking to that surface.

7. Using the pins for alignment dry-fit the scales to the tang. Use tape to carefully mask the blade in front of the scales. This will facilitate cleaning the epoxy squeeze-out from the blade.

8. Scuff the tang with 120-grit and clean it thoroughly with acetone so the epoxy will stick.

9. Mix epoxy according to the manufacturer’s instructions and smear it onto the tang and the mating surface of the scale. Dip the pins one by one into epoxy and push them into the scale from the outside. Align the scale with the tang and push the pins in just barely through the tang.

Apply epoxy to the other side of the tang and the other scale and position it over the pins. Push the pins into the second scale, centering them between the two scales and apply clamps.

10. When the epoxy is “rubbery” it’s easy to peel off the squeeze-out from in front of the scales. If you wait past the “rubbery” stage you can use a sharpened wooden dowel to scrape the squeeze-out from the corner.

11. When the epoxy is fully cured remove the clamps and — keeping your tape well in place — shape the handle.

You can use files and rasps and sandpaper, but a belt sander will save a lot of time. Shape the wood to match the steel and to make a comfortable grip.

Do not generate too much heat! Grind the pins slowly and intermittently; a little on each, letting it cool before going back for more.

12. Apply your finish of choice.

13. Remove the tape and enjoy your new knife! Congratulations!

Care and Maintenance

Sharpen lightly and only often enough to keep the best edge. Your high-carbon steel blade will respond well to a smooth sharpening steel such as a scraper burnishing rod.

Remember that this blade is *not stainless*. Dipping the blade in water as you slice the more reactive foods can help to keep apples, potatoes, and onions from changing color. Rinse your knife and wipe it dry after each use, and never *ever* put it in the dishwasher.

Your knife's blade will acquire a beautiful blue-gray patina that distinguishes it from stainless steel, and gives it that “heirloom effect.” If it should happen to rust, or if the patina becomes unsightly, use a bit of steel wool or some mild cleanser, such as Bon Ami (on a cork to protect your fingers) to scrub it clean.