

Using KYDEX to make a sheath for your knife

HINTS:

1. Be careful in laying out your pattern to make sure sheath is right or left-handed as required.
2. Kydex can be shaped with a hair dryer, but a great deal of time is required to heat the Kydex. A heat gun is many times faster and therefore much easier to use. Care must be taken not to over heat.
3. If Kydex is bent cold and turns white, heating with the heat gun will bring back the original color. The same thing applies to surface scratches.
4. A large eyelet at the bottom of the two-piece sheaths can be used as the tie down.
5. Be careful when heating the two-piece sheaths when forming around the blade so as not to distort the offset around the guard too much.
6. Try to make your sheath just before the final buffing and sharpening of the blade and handle. This will avoid small scratches on the finished blade.

FORMING:

1. The heat forming of Kydex is a relatively simple process involving just a heat gun.
2. The simplest of sheaths to produce is the two-piece sheath. The knife is traced on the Kydex, and allowance is left for the eyelets, belt loop (or loops) on the bottom sheet of Kydex.
3. Be sure to form an offset in the top and bottom Kydex around the guard and handle so the Kydex forms smoother around the knife.
4. Simple planning for the belt loop to determine if you wish the knife to ride high or low, and belt width, will determine how much you allow extra for the belt loop at the top.
5. The top piece will contain the knife retainer, which will be the Kydex heated and wrapped around the knife guard or finger grooves to retain it.
6. The knife is then inserted, and the top layer of Kydex is heated in the area of the blade to form the Kydex to the blade. Twisting the blade in the sheath when the Kydex is heated will slightly enlarge the opening allowing the blade to be inserted and retracted easily without marring its surface, especially when the blade is shot peened or coated.
7. After cooling, reheat top surface near the edges and pinch together to close the gaps around the seam of the sheath. Heat the area to be used as the knife retainer around the guard to keep blade from coming out. Grind edges to final shape. Hand sanding may be required around the belt loop and the retainer edge to smooth edges for final touch up.
8. One piece sheaths are similar to leather sheaths as far as layout of the material goes except the sheath comes up further, and no snap is used to hold in knife, the Kydex is formed around the guard or the lower part of the hand grip or finger groove.
9. A little practice will show you how much to allow for the belt loop and how large the piece of Kydex must be to wrap around the knife. After heating the Kydex in the area of the bend, the Kydex is wrapped around the knife and formed as wanted. Install eyelets (make sure eyelet for belt loop is installed first as it may not be accessible after other eyelets are installed). Sand to shape. Form upper part of sheath around the guard or finger groove to retain knife in sheath.
10. A little experimenting will uncover the best shape for the retaining area of the sheath. Knife should not hang up when you insert it into the sheath. You may have to heat and turn up the edges to obtain a smooth inserting and/or retraction.