Advantages of KYDEX® Sheet Sheaths & Holsters

- Highly durable for continuous use
- Great color selection including custom color matching
- Easily molds to contours of the knife or gun
- Water, chemical, and stain resistant
- Can be remolded
- Easily cleaned off with household cleaners
- Can be used as a liner for leather sheaths and holsters

There are a number of different ways to construct a knife sheath or gun holster. Within this technical brief are some of the more common ideas in the construction of knife sheaths and gun holsters when using KYDEX® sheet. It is generally used because the sheet is easily formed under the heat from a heat gun and it is also resistant to normal wear and tear from the knife blade. The most common thicknesses range from 1.52mm (0.060") to about 3.18mm (0.125").

Possible Tools for Sheath Construction

- Hair dryer or heat gun for heating KYDEX® sheet
- Foam, neoprene, small towel, etc. to wrap around knife or gun before pressing sheet around knife or gun
- Masking tape to tape off towel, neoprene, etc.
- Sheath Press to form KYDEX® sheet to the shape of the knife or gun
- Adhesive compatible with PVC (solvent cement, adhesive, hot gas weld)
- Rivet Press and rivets for seams of holster
- A type of saw to cut out the molded piece of KYDEX® sheet
- Sandpaper or scotch brite pad to finish the sheath once constructed

Tips for Sheath or Holster Construction

- A 0.30m x 0.30m (1’ x 1’) sheet is a recommended size for making a sheath or holster
  - The sheet may be cut with a circular saw or band saw
  - A heat gun is a much faster way to heat the KYDEX® sheet, but with patience a hair dryer may be used.
  - It is important to keep the KYDEX® sheet to about 166-193°C (330-380°F) while forming. The sheet will burn at a temperature greater than 204°C (400°F).
  - Cotton or heat-resistant gloves are recommended during the heating and forming.
  - Never use an open flame to heat KYDEX® sheet because it will burn.
  - An area that is stress whitened may be reheated to bring the color back into the sheath being formed.
  - If a desired shape is not acquired, the KYDEX® sheet may be reheated and reformed for desired results.

- To form the product, a sheath press is recommended when forming the KYDEX® sheet to the knife/gun.
  - Sheath presses may be constructed out of wood & neoprene foam or may be purchased at www.knifekits.com.
  - A towel or neoprene can be wrapped around the blade to create space during molding so the knife/gun can be released from the sheath/holster and keep the blade from being scratched.
  - KYDEX® sheet can be wrapped around the knife/gun like a common leather sheath/holster or be made into two pieces.
Knife Sheaths Using KYDEX® Thermoplastic Sheet

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Tips for Sheath or Holster Construction

- A band saw or another type of saw may be used to trim the edges of the formed KYDEX® sheet.
- Be careful to leave enough material to connect the edges of the sheath/holster for a strong bond by rivets and/or adhesive.
- Rivets are a good way to connect the edges of the knife sheath/gun holster.
  - A high strength adhesive is also recommended when using a bonding agent to connect seams of the sheath in conjunction with rivets. (see TB 150-E)
- Leaving a small slot or hole at the bottom of the sheath/holster will allow for better drying when cleaning.
- Belt loops may be constructed with the extra material not used in the forming operation.
- Finishing of rough edges after sheath construction may be done with sandpaper, etc.

For supplies or more information, contact or visit the following websites:

**Classic Knife Kits**

- Sales: 1.888.250.5650 (Toll Free)
- Sales: 770.463.4881 (International)
- Product Support: 740.965.9970
- www.knifekits.com

**Texas Knifemaker’s Supply**

- Toll Free (Continental US) 888.461.8632 Orders Only
- Information 713.461.8632
- www.texasknife.com

**Springfield Leather**

- Sales: 1.800.668.8518 (Toll Free)
- Information: 417.881.0223
- www.springfieldleather.com

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