



## Museum Textile Services

### Hot Cutting and Applying Polyester Sheer Overlays

Sheer overlays are used to stabilize textiles by securing areas of weakness with a minimum of intervention. One of the advantages of using a sheer polyester fabric, rather than silk crepe, is that it can be cut using a simple hot-cutting tool, leaving behind a finished edge that won't unravel. This handout gives step-by-step instructions on hot cutting and securing polyester sheer overlays. The technique works on some other synthetics, such as nylon net, however cut net edges don't unravel.

- Many polyester fabrics are used for sheer overlays, including polyester taffeta, organza, and Stabiltex®/Tetex®. In order to avoid hemming raw edges, polyester sheers can be hot cut with a simple wood burning tool or a tacking iron with a blade attachment. Other advantages to these sheer overlay fabrics include their excellent drape, wide range of colors, availability in wide widths, and relatively low cost. Stabiltex®/Tetex® is extremely difficult to find, as it is no longer being manufactured, however heavier commercial sheers can be found in most fabric stores. ([See Sheer Overlay Supplier List](#))

- Among the drawbacks of using a polyester sheer overlay are the potential for high shine, lower transparency, a moiré effect when two layers are superimposed, and the aforementioned scarcity of Stabiltex®/Tetex®. To help determine the best sheer overlay for a project, we have created the [Sheer Overlay Score Card](#).

- There are two kinds of sheer overlays: those that go on a targeted area of the textile and those that go around a target area. This hot-cutting method works for both types of overlays.

- The equipment you will need to hot cut polyester fabric is a hot-cutting tool with a stand to rest on, a piece of glass larger than the shape being cutting, heavy Mylar or other clear film, a marker, scissors or a scalpel, masking tape, and a solvent such as alcohol. Choose the best polyester sheer overlay fabric and make sure there is enough extra to account for errors.

- Make sure the work space is clean, large enough for the project, and well lit. Place the Mylar over area of the textile that is being traced. Carefully trace the shape with the marker, then move the marker away from the textile. Using a scissor, or a scalpel and cutting board, cut along the drawn line. Clean any remaining ink off of the Mylar using solvent.



This beaded textile fragment was not in display condition due to the rough edges left when it was cut away from its original garment.



A Mylar tracing is made of the area around which the sheer overlay will fit. The Mylar was then carefully cut.



The Mylar tracing is taped to the polyester sheer and carefully cut using a commercial wood-burning tool.

- To hot cut polyester overlay fabric, it is best to work on a piece of glass or similar heat-proof surface, measuring at least 18 x 24 inches. Tape the fabric to the glass under moderate tension. Then tape the Mylar tracing to the fabric using loops of tape, leaving the edge of the Mylar free of tape. Double check that the Mylar is positioned well before hot cutting.
- Heat the hot-cutting tool on its stand to a low temperature. Test on a scrap of the fabric until you determine at what temperature cuts cleanly without leaving behind melted beads on the edge of the fabric. Different fabrics cut well at different temperatures. Bear in mind that some tools get hotter the longer they are on and should be unplugged at regular intervals to cool.
- Trace around the Mylar shape using the hot-cutting tool. When finished, touch up any areas of the perimeter if the edge is not well finished by lightly tapping with the hot-cutting tool. Separate the Mylar from the fabric, taking care not to disturb the weave structure or leave behind any adhesive residue from the tape. Allow the hot-cutting tool to cool completely in a safe place before putting it away.
- If the cut-out shape is being used to stabilize a targeted area of a textile, it can be simply pinned it in place and secured around the perimeter with hand stitching. If the overlay is more than 2 inches square, it may need additional stitches in order for the patch to lie flat. Be careful not to pull these interior stitches too tightly or you may distort the weave structure and make the overlay more visible.
- If the voided overlay fabric is going around a target area on the textile, it can be likewise pinned in place and attached with hand stitching. This works best with garments, or shapes within shapes, such as a large patch on a quilt.
- If the overlay is intended to go around a textile fragment, like in the illustrations here, the textile will need to be mounted first onto an archival, fabric-covered board. Once it is mounted, the overlay can be positioned and sewn around the perimeter of the void with hand stitching and a curved needle.
- To secure excess overlay fabric to the back of a mounting board, wrap it along the grain line, pinning into the side of the mounting board if necessary to maintain alignment. Secure it with hand stitching to the fabric covering the mounting board. Take great care when working on the back of the mounting board, flipping the mounted textile gently over onto a padded surface. Press down as little as possible while stitching. Another archival board can be secured to the back of the mounting board with archival double-sided tape protect it and provide a more finished look.



be taped to the Mylar tracing.



In this example, the sheer fabric was voided to surround the beaded design, camouflaging the rough edges.



The voided overlay was hand stitched around the beaded design, wrapped to the back of the mounting board, and secured with hand stitching.

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