Furniture upholsterers use a variety of techniques to sew fabrics for use in upholstery. The construction details will vary depending on the individual chair or sofa design. Below are general suggestions for upholstery fabrication. Coated fabrics have certain physical properties that may react differently than woven fabrics. It is the responsibility of the workroom/fabricator to evaluate the material for its suitability on a specific furniture design.

Contents

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Sewing Needle and Thread

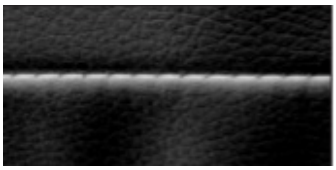
For Dual Duty XP Heavy — or equivalent Coats and Clark Polyester wrapped Polyester thread, the recommended needle is #16.

Designtex recommends ORGAN Industrial Needles or a similar brand, specific series noted on the right.

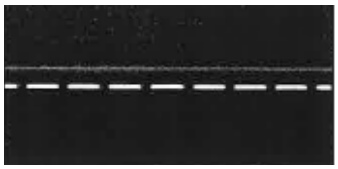
#16 (DP x 17, 135 x 17, SY3355, 100/16)

Stitches per Inch

The recommended stitch length for Silicone Element and Silicone Element CELLIANT is 6–7 stitches per inch.



Super Imposed Seam



Lapped/Decorative Seam

Sewing Machine Instructions

Make sure timing on the sewing machine is calibrated to prevent needle drag on the way out of the hole. Avoid machines with sharp edges on the pressure foot, it will cut the surface. Many newer machines have settings especially for coated fabrics. Add a lock stich to protect sewing.

Note: A top stitch is preferable for sewing.

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Sewing Needle and Thread

For #20 nylon thread, the recommended sewing needle is #19 Round Point Needle. Nylon thread is recommended.

Stitches per Inch

The recommended stitch length for solid silicone products is 5–7 stitches per inch (5 stitches per inch is recommended for printed silicone upholstery).

Sewing Machine Instructions

Sewing machines need to be calibrated for sewing speed and sewing foot guide settings so as to not grab the fabric and stretch the thread hole. In addition, needle drag can also cut into the materials causing a larger hole. Make sure timing on the sewing machine is calibrated to prevent a needle drag on the way out of the hole.

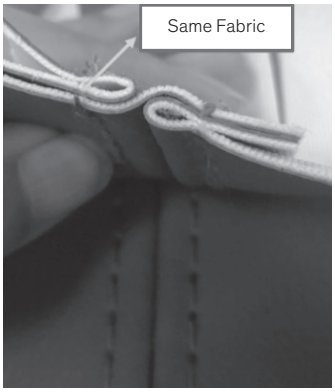
Avoid machines with sharp edges on the pressure foot, it will cut the surface. Many newer machines have settings especially for coated fabrics.

Whenever possible, avoid or minimize right angle seams in high abrasion areas. For example, use a waterfall design vs edge seam along the chair cushion bottom.

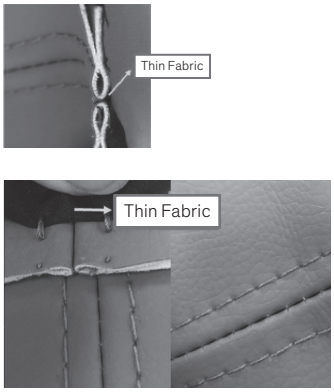
Add a lock stich to protect sewing. Back stitching (back and forth) has shown to cut the coated fabric by causing too many holes, too close together.

Stitching with Double Lines

A suggested modified sewing method, shown on top right, can be used to prevent exposing the lining or needle holes.



Modified Sewing Method



Traditional Sewing Method

Seam Strength

To enhance the seam strength, consider replacing reverse stitching with adhesive tape or thin fabric on the back to prevent a break in the fabric coating. Enhancing the seam strength is also a good idea for tight seat applications. The sewing tape or fabric is sewn in the seam, therefore reducing the stress on the seam and fabric.

Welt Cords

Avoid use of welt cords, especially if the welt cord is in an exposed, high abrasion area such as a cushion top. Wrapping a piece of fabric around a hard, plastic tube exposes it to continual rubbing every time someone sits down and gets up. Also, the welt cord creates greater tension on the material. This reduces the flexibility of faux leather and makes it easier to abrade the surface of the material. If you must use a welt cord, use a paper, or cotton cord, which will absorb the impact better.

Foams

Use only high-quality density foams. Ensure all stress or impact areas of the furniture are well padded. Cutting the foam 1 inch larger in all directions with assist in recovery and help reduce stress on the material.

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