

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.

### Sewing Needle

The recommended sewing needle is a #19 Round Point Needle.

### Thread

The recommended sewing thread is a six strand nylon thread sized to match the needle size.

### Stitches per inch

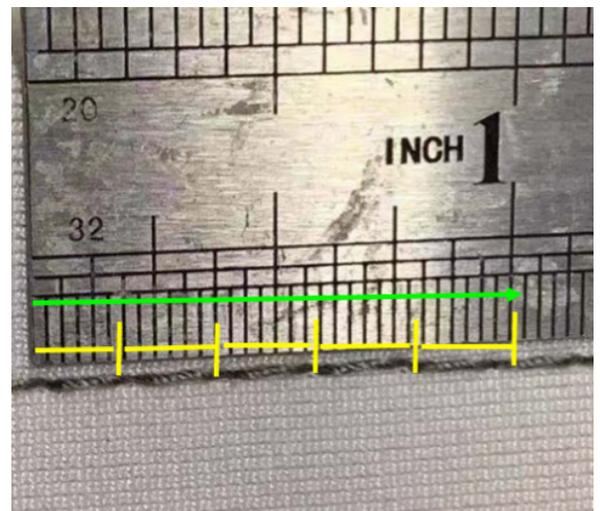
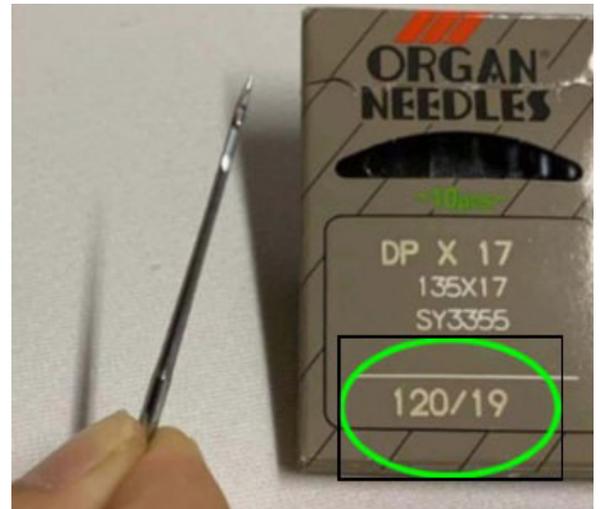
The recommended stitch length is 6-7 stitches per inch. Back stitching (back and forth) has shown to cut the coated fabric by causing too many holes, too close together.

### Sewing machine settings

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. Many newer machines have setting especially for coated fabrics.

### Foams

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



### Seam and 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.

- A contact for sealing tapes is Bemis Associates, Inc.  
978-425-6470
- Three specific tapes to try from Bemis: Sew-free 3415, SRT 4000, and SRT 5000

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 (see image below).



**Stitching with double lines**

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**Use of welt cords**

Avoid use of welt cord, 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.

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.



Traditional sewing method



Modified sewing method