



Museum Textile Services

Fabrics Used for Stabilization

From the AIC Textile Conservation Catalog

1) Properties of Stabilization Fabrics

Properties, such as fiber content, quality, fabric structure, texture, dimensional stability, weight, hand, sheen, finish, color, and colorfastness, must be considered when selecting a fabric to use in a stabilization treatment.

(a) To remove potentially damaging finishes, stabilization fabrics must be washed before use.

(b) Some conservators prefer "like with like" and match the fiber content of the stabilization fabric with that of the historic textile. Others opt to differentiate their repair from the original by using different fiber content. Some conservators deliberately eschew protein-based fibers out of concern about the potential for insect damage.

(c) Many conservators follow no fixed rule but select fabrics to best suit the needs of the particular project, balancing the many fabric properties with the properties, condition, and needs of the textile for which the fabric will be used.

2) Uses for Stabilization Fabrics

(a) Localized support (i.e. patch or fill) or overall support (i.e. backing or lining)

(1) The fabric should provide sufficient support.

(2) Texture and interaction with the original fabric (i.e., friction or lack thereof between the fabrics) should be considered.

(3) Fabric weight is most often the same as or lighter than the weight of the original. For an artifact that has heavy embellishments on a weak ground fabric, a support fabric of a heavier weight than the original may be needed.

(4) If the fabric is also being selected as compensation for loss, then color, sheen, and texture will also be important.

(5) When an overall support is also being used as a barrier to dust, weave density is also important.

(b) Overlay (i.e., to protect a fragile surface such as shattering silk)

(1) Because translucency is a primary requirement of overlay fabrics, sheer fabrics, such as nylon net, silk crepe-line, or polyester Tetex® (Stabiltex®), are typically chosen.

(2) If an overlay is combined with a backing support, the needs for support and surface stabilization determine the selection of fabrics.

(3) Commonly used fabrics and applications

2) Uses for Stabilization Fabrics cont.

(c) Sheer fabrics, including nylon net, silk crepe line, or polyester Tetex® (Stabiltex®), are typically used for overlay treatments or treatments combining overlay and backing.

(1) Nylon net–heat-set or bobbinet-constructed

- (i) Because of the openness of its construction, nylon net is usually considered the most sheer overlay fabric.
- (ii) Nylon net does not unravel or fray.
- (iii) Heat-set nylon net is available in many colors; bobbinet-constructed nylon net is available only in white, off-white, and black, but is easily dyed.
- (iv) Bobbinet-constructed nylon net has a better hand and drape than heat-set nylon net or polyester Tetex® (Stabiltex®).
- (v) Some heat-set nylon net has a stiff and abrasive hand.
- (vi) Nylon is susceptible to light-catalyzed degradation reactions. Therefore, the lifespan of the nylon may contraindicate the use of nylon in a treatment if the artifact will be exhibited.

(2) Silk crepe line

- (i) Silk crepe line is less sheer than nylon net, but more sheer than polyester Tetex® (Stabiltex®).
- (ii) Silk crepe line is easily dyed as a whole fabric or in local areas.
- (iii) Silk crepe line is usually hemmed to prevent raveling, creating areas that have less translucency.
- (iv) Silk crepe line has a good hand and drape and generally conforms well to textiles. (Drape is similar to bobbinet-constructed nylon net and better than heat-set nylon net or polyester Tetex® [Stabiltex®].)
- (v) Silk is susceptible to light-catalyzed degradation reactions. Therefore, the lifespan of the silk may contraindicate the use of silk crepe line in a treatment if the artifact will be exhibited.

(3) Polyester Tetex® (Stabiltex®)

- (i) Tetex® (Stabiltex®) is less sheer than both nylon net and silk crepe line. In addition, it has a surface shine and moiré effect that can be aesthetically disturbing.
- (ii) Tetex® (Stabiltex®) is available in a range of colors that can make dyeing unnecessary. However, since polyester is difficult to dye, the range of colors can limit the aesthetic satisfaction in using Tetex® (Stabiltex®).
- (iii) Tetex® (Stabiltex®) can be heat-cut which seals the edges, eliminating the need for hems.
- (iv) Tetex® (Stabiltex®) can be difficult to drape over shapes.
- (v) Tetex® (Stabiltex®) is chosen for its long-term stability.