



STRETCH FABRICS

COOPERATIVE EXTENSION SERVICE, MICHIGAN STATE UNIVERSITY, EAST LANSING

BY BERNETTA KAJABKA
Extension Clothing Specialist

STRETCH FABRICS ARE DESIGNED for clothing which gives wearing comfort and ease of movement as well as a smooth look. Textured yarns provide one of the ways of creating fabrics that will both stretch, or "extend," and return to their *original measurement* when released.

Stretch fabrics are made of one or a combination of fibers such as nylon, cotton, wool and the polyesters. Although used primarily for slacks, stretch fabrics are finding increasing use in active sportswear, uniforms, maternity clothes, infants' and children's wear, and adults' clothing, lingerie, swimwear, and other items where allowance for ease of movement without excess fabric and bulk is important.

WHAT ARE THE TYPES?

The three types of stretch fabrics are:

Lengthwise (warp) stretch—used in slacks, ski pants and lounging pants.

Crosswise (filling) stretch—used in jackets, skirts and dresses.

Two-way (warp and filling) stretch—used in bathing suits, girdles. Future uses in pants, dresses and jackets.

HOW MUCH GIVE?

The big question in the use of stretch fabrics seems to be how much the fabric should give. Requirements for the stretch factor may range from 15 percent stretch for skirts, blouses, and jackets to 30 percent stretch for pants and slacks and even more for swimwear and underwear. A garment made of stretch fabric, whatever its end use, should feel comfortable, never feel or look strained or too tight.



Some commercial pattern companies are designing patterns exclusively for use with stretch fabrics. Standard patterns have to be adjusted for use with stretch fabrics by shortening to use with lengthwise stretch, or narrowing pattern pieces to use with crosswise stretch.

SLACK PATTERN (With warp stretch fabric)
Shorten crotch by taking $\frac{1}{2}$ inch tuck across the crotch of pattern.

Turn up leg 1 inch at bottom of pattern.

SKIRT OR JACKET PATTERN (With crosswise stretch fabric) Fold a $\frac{1}{2}$ inch tuck lengthwise down through the pattern to make it narrower.

HANDLING

Preshrink fabrics with steam unless they are labeled as preshrunk. Hold steam iron $\frac{1}{2}$ inch above surface of fabric—steam as evenly as possible—do not press—let fabric dry thoroughly.

Allow stretch fabric to relax about $\frac{1}{2}$ hour before pinning on pattern and cutting—lay fabric smooth without pulling.

Lay pattern grainline with grain of fabric. DIRECTION OF STRETCH DESIRED IN GARMENT SHOULD COINCIDE WITH STRETCH DIRECTION OF FABRIC.

Use fine dressmaker type pins for pinning pattern securely to fabric. Avoid pulling or stretching by cutting with a sharp shears.

SEWING

Use a fine sewing machine needle and 14 to 15 stitches per inch.

Staystitch around garment pieces to prevent stretching while sewing.

Seams need to extend or stretch with the fabric to avoid seam breakage. Seam stretchability may be increased by:

1. More stitches per inch.
2. Stretching fabric slightly during stitching.
3. Stitching with the narrow bite zig-zag stitch.
4. Loosening tension.
5. Using a sewing thread which has elasticity. (Although textured nylon, nylon and silk threads have greater elasticity, mercerized cotton thread will also work and is available in more colors.)

Stitch garment pieces with the grain (wide to narrow).

TEST FOR SEAM STRETCHABILITY

Sew two pieces of fabric together in stretch direction.

Pull the seam in the same direction.

If seam threads break before the fabric is completely stretched, make further adjustments in length of stitch and tension and type of thread.

Remember that the use of linings will counteract the advantages of stretch in the outer fabric. Some stretch interfacings are on the market but remember that the degree of stretch in outer fabric and interfacing should be the same.

Finish seam edges by edgestitching or overcasting (plain or zig-zag stitch).

Hem may be edgestitched and hand hemmed or turned, edgestitched and hand hemmed.

CARE

Press with steam iron or dry iron and damp cloth at low temperature setting and avoid excessive stretching.

Use a light iron pressure.

Lay protective strips of paper under seam edges while pressing so seam edge lines will not show through to right side of fabric.

Wash or dryclean as indicated by labeling at time of purchase.

IMPORTANT: Lay flat for storage.

EXPERIMENT

Remember that you will need to experiment sometimes to get desired results. Adjustments may be necessary in your choice of thread, machine settings, or sewing techniques.