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G92-1091 Sewing With Knit Fabric

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Sewing With Knit Fabric

This publication discusses kinds of knits, testing for stretchability, and blocking, cutting and sewing with knits.

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Knits are an important part of every wardrobe because they are comfortable to wear and easy to care for. They shed wrinkles well and do not ravel when sewn. Knits are versatile and can be seen in everything from the most casual wear to the dressiest. Knits come in a variety of fabrics that vary in texture, stretchability, fiber content, weight and design.

Kinds of Knits

A knit is fabric made from interlocking looped stitches. Knit fabrics available for sewing can be grouped into six general categories.

- *Firm, stable knits.* These stretch very little and are handled similarly to woven fabrics. These include double knits and Raschel knits, a novelty knit recognized by lacy, stable construction.
- *Lightweight single knits.* They have lengthwise ribs on the right side, horizontal rows on the reverse side and moderate stretch. Examples are jerseys and tricot knits.
- *Interlock knits.* These are lightweight, drapable and have a fair amount of crosswise stretch. They do not curl at the edges, but can run on the crosswise edge. Interlock knits are heavier, thicker, and easier to sew than jersey knits.
- *Textured knits.* These may be single or double knits. Examples include knitted terry and velour, sweater knits, and sweatshirt fleece. These knits have moderate to good stretch except sweatshirt fleece which has little or no stretch.
- *Two-way stretch knits.* They stretch in both length and width and have a high percentage of

resilient spandex fibers. These knits are usually selected for active sportswear.

- *Ribbing*. This is a stretchy knit used for stretch trims at wrists, ankles, neck and waist. It is available in tubular ribbing and in rib trim.

Stretch Gauge

Most patterns designed for knits have a stretch gauge printed on the back of the pattern envelope. The amount of ease built into the pattern design is based on the number of inches the specific knit will stretch. If the pattern recommendations are not followed, a garment can have too tight or too loose a fit.

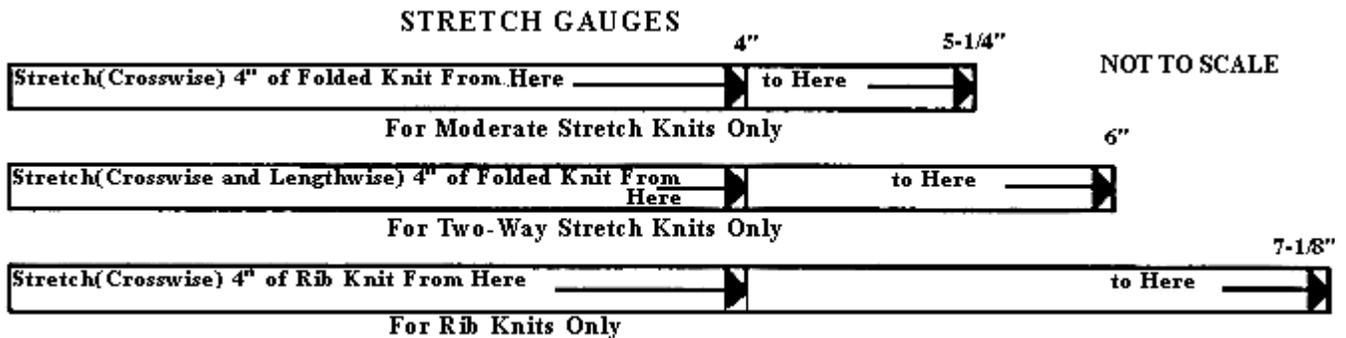


Figure 1. Using the proper stretch gauge is crucial to achieving the correct fit. Always check your fabric against the stretchability gauge on the back of the pattern envelope.

Swimsuits and leotards require knits that stretch. To be sure your fabric has the right amount of stretch and recovery, use the Stretch Gauge. The Stretch Gauge is designed for moderate stretch, two-way stretch and rib knits.

To use the gauge, make a fold about four inches down from the cut edge of the fabric. Mark off four inches on the crosswise grain and place this four-inch section of fabric under the four-inch section on the gauge. Stretch gently to see if the fabric has adequate stretch for the pattern. If the folded edge starts to curl, you have stretched the fabric too much. This guide tells you the minimum amount of stretch needed for the pattern. If the knit stretches a little beyond the mark, it is still suitable for the pattern. Generally stable knits stretch 1/2" or less, moderate-stretch knits stretch about 1 1/4", very stretchy knits stretch 2" or more and two-way and four-way knits stretch 2" or more in both directions.

As you check for stretchability, also check knit for stretch recovery. When you release the fabric from its stretched position, does it spring back to its original size? If the fabric tends to bag or sag, it will most likely stretch out of shape with handling and wear, and should be avoided.

Knits do not have lengthwise and crosswise yarns like woven fabrics. Instead the interlocking loops of yarns create lengthwise ribs called *wales*, and crosswise lines called *courses*. Knit fabrics can easily be just as "off grain" as woven fabrics. To check the grain when you are buying fabric, follow a course (or crosswise grainline) across the fabric with your finger. If it does not run parallel with the edge, it is off grain and will require blocking. If the fabric has a permanent-press finish, it cannot be straightened.

Preparing the Fabric

For best results, wash and dry the fabric as you will the finished garment. Washing helps to relax the

fabric and removes excess fabric sizing. Excess sizing can cause skipped machine stitches. Preshrink any trims, interfacings, linings, and notions which will be used in the garment. Do not preshrink knit ribbing. It tends to distort during prewashing and shrinkage occurs in the lengthwise direction making the rib trim narrower, but not tighter.

Blocking Knits

Mark the grainline by marking along a course near each cut end of the fabric. Cut the edges of the fabric so they are straight of grain with the course. Fold the fabric so the selvage edges and the cut edges are even. If your fabric is a tubular knit or doesn't have a selvage edge, you'll also need to straighten the lengthwise edges by marking a wale and cutting the fabric on the wale or rib-line. (Don't use the fold as a guide for cutting because it may not be straight of grain.)

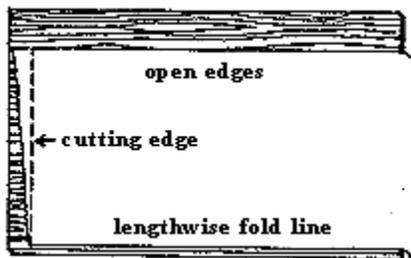


Figure 2. Fold knit fabric to check for straightness, and block to straighten if necessary.

Lay the fabric on a blocking board or on a similar padded surface with the lengthwise and crosswise edges pinned to the surface at right angles to each other. If the fabric has wrinkles or is stretched to create the rectangular shape, it is not completely straight of grain and should be blocked. Hold a steam iron about 1/2 inch above the

fabric to steam fabric into place. Let the fabric rest for several hours so it will retain its shape. If your blocking surface is small and you have lots of fabric, you may need to block the fabric in sections from one end to the other.

Choosing Patterns

Check the stretch gauge on the pattern to see if the fabric is suitable for the pattern. If the pattern does not have a stretch gauge on the back, it is designed for a stable knit or woven fabric. If you're in doubt about whether the fabric and pattern are right for each other, look at the suggested fabrics listed on the back of the pattern envelope.

Cutting and Marking

Determine if your knit fabric has a right and wrong side. Single knits (jersey and tricot) have fine, lengthwise ribs on the right side and crosswise loops on the wrong side. If you can't tell one side from the other, just designate one side as the right side. Use light chalk or tape to indicate the wrong side of each garment section.

Cut all knits in one direction; follow the "with nap" layout. Do not simply fold knit fabric in half lengthwise, right sides together, and cut because the grain lines will not be correct and the garment will not look right. The wale and course need to meet at right angles. This means you must refold knit fabric into smaller units.

If the fabric is very stretchy, cut the pattern pieces one at a time so the outside edges are not distorted. Be careful not to stretch the fabric as you cut it. If the fabric is quite stretchy, pattern pieces ordinarily cut on the bias can be cut on the crosswise grain. If the center crease can not be removed by steaming, it is permanent. Refold the knit for pattern layout to prevent the crease from showing on the garment.

Avoid letting the knit fabric hang over the edge of a cutting table. The weight of the fabric will cause it

to be distorted. If you have lots of fabric, roll up the excess so there is no fabric overhang.

There are a variety of marking methods. Try pins, water-soluble marking pens, chalk, tailor tacks, or hard milled soap slivers. Test marking pens to be sure the ink can be removed from the fabric.

Sewing Tips

Needles. Use a ball point needle on knit fabrics. The round points on these needles separate the yarns instead of piercing them and prevent skipped stitches. If skipped stitches are a problem, use a larger needle or try some needle lubricant. Needle size will depend on fabric weight. The finer the fabric, the finer the needle should be.

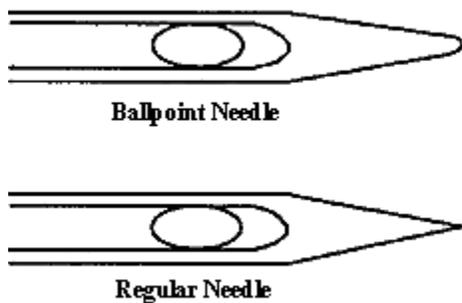


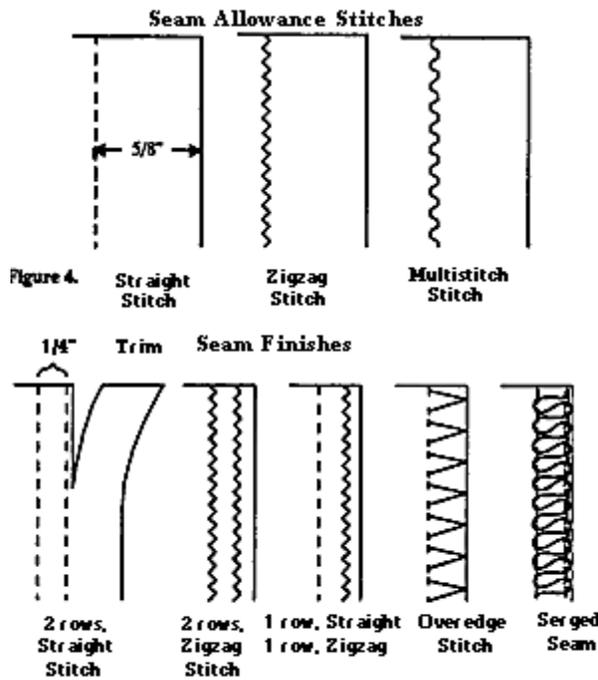
Figure 3. Use a ballpoint needle with knits.

Thread. For lightweight knits use extra fine polyester, or polyester/cotton thread; for medium weight knits use an all purpose polyester or a polyester/cotton thread. A mercerized cotton thread does not have as much stretch as synthetic threads. Using woolly nylon in the bobbin to sew a plain seam makes it more elastic. When filling the bobbin, use a slow speed. When polyester-cotton thread is wound at a high speed, the threads stretch, causing puckered seams in the finished garment.

Elastic. Elastics differ in their stretch and recovery characteristics. A braided elastic narrows when stretched and can lose stretch and recovery if it is pierced when stitched. Knitted and woven elastics retain their original width when stretched. A no-roll elastic is appropriate for pull-on pants and skirts. There are special elastics for cycling pants, swimwear, lingerie and sweatpants.

Seams. Select a seam with enough stretch for the fabric. Use a plain seam for stable and moderate-stretch knits. For lighter weight knits and some medium-weight knits, use one of these:

- Double stitched seams using a straight stitch, zigzag, or a twin needle. Stitch on seam line, then 1/8 inch away.
- Serger seams to neatly trim and finish the edges.

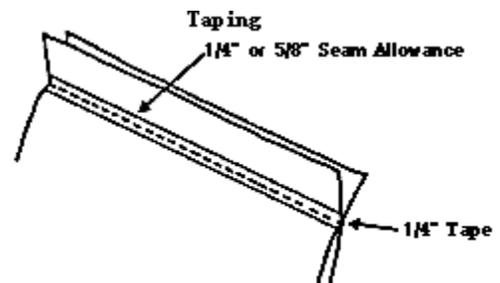


Figures 4& 5. Seam allowances stitches best used with knits.

Since knit fabrics don't ravel, seam finishes are generally not necessary. If the cut edges ravel or curl, use a narrow zigzag stitch to add stability.

Figure 6. Reinforce knit seams with woven tape.

Seams that get a lot of stress and may stretch out of shape, such as shoulder, neckline, and waistline seams, need to be taped for stability. Narrow twill tape, woven selvage or woven seam tape are suitable. Sew the seam, catching the tape in the seam. On lightweight knits, press the seam allowances to one side and topstitch close to the seamline through all layers.



Stabilize the zipper area by applying a strip of lightweight fusible interfacing or hand stitch a piece of seam tape within the seam allowance area only. Stitch in the zipper by beginning at the bottom of the zipper tape and stitch up one side. Start at the bottom again, and stitch up the other side.

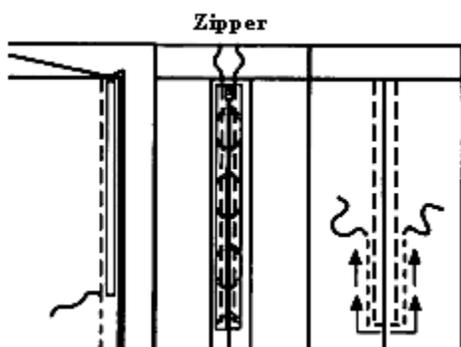


Figure 7. Reinforce zipper with light weight fusible interfacing.

Interfacing. Knit fabrics usually do not need interfacing, lining and underlinings. The choice of interfacing is determined by the purpose and the relationship to the general characteristics of the fashion fabric. Select supple interfacings such as a fusible tricot or a stretch non-woven to stabilize detail areas. These areas include necklines, collars, cuffs,

plackets, and buttonholes. Consider the weight, stretch and care requirements of the knit as well as the desired finish.

Hems. Let the garment hang for at least 24 hours before measuring the hem. Hems can be hemmed by hand, machine, or fusing. For very heavy knits, double stitch the hem. If topstitching a hem on textured knits, a zigzag stitch may look straighter than a straight stitch.

Ribbing. Rib knit trim is designed to have great crosswise stretch and recover to its original size and shape after stretching. It is generally sold by the inch in tubular form. Some ribbing comes with finished outer edges and is then applied single layer.

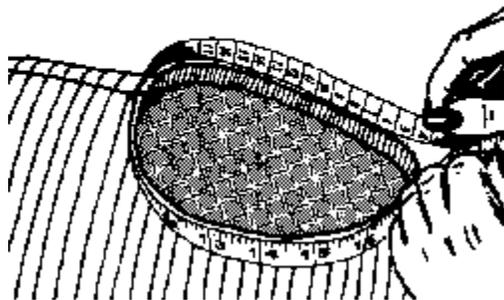


Figure 8. Stand tape measure on end to determine ribbing length.

Select a ribbing similar in weight to the fabric. Cut ribbing to fit around wrists, upper arms, and ankles. Add 1/2" for seam allowances. To measure necklines and armholes, stand tape measure on end on the pattern to determine length accurately. Cut ribbing two-thirds the measured length of garment edge plus 1/2" for seam allowances. V-necklines are cut the same measurement as the garment. Ribbing may be applied by the flat or tubular method ("in-the-round"). In the flat method leave one seam open when applying the ribbing.

Pressing. Test press on fabric scraps for the correct amount of steam, heat, and pressure. Remember to press and not iron the fabric. Ironing stretches the knit fabric. To prevent the fabric from being flattened too much, place the fabric on a terry towel and use a press cloth.

Buttonholes. If the garment has buttonholes, stabilize the buttonhole area with a layer of interfacing. Use a fusible interfacing with lengthwise stability and crosswise stretch. Make vertical buttonholes, because they run parallel to the ribs in the knit and will be smoother and neater than horizontal buttonholes.

Vertical Buttonhole

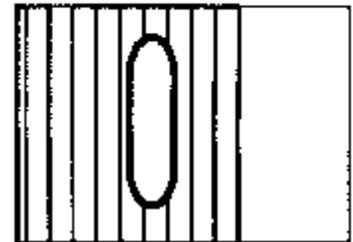


Figure 9. Use vertical button holes that run parallel.

Care for your knits. Many lightweight knits are machine washable and dryable. Some may require dry cleaning. Be sure to read the care label of the manufacturer when purchasing your fabric.

To retain their shape, knits should be folded and placed in a drawer or on a shelf. If the knit garment is to hang, use a well padded hanger or fold in half and hang over the center rung of the hanger.

Sewing Checklist

	Needle Size	Machine Setting	Marking Methods	Seams
Single knits	8/60-11/75	12/2mm	chalk, marking pens, soap sliver	plain, double sewn, twin needle
Double knits	8/60-14/90	10/12-2-	chalk, soap sliver,	plain, double sewn, welt, slot,

		2.5mm	marking pens, thread	pipied
Interlock knits	8/60-11/75	12/2mm	Any type except wax	plain, double sewn, twin needle, stretch
Raschel knits	12/80-14/90	10/12-2-2.5mm	pins, tailor tacks	plain, double sewn
Sweatshirt knits	10/70-14/90	9/12-2.5-3mm	marking pens, chalk, soap sliver	plain, zigzag, double sewn, twin needle, welt, serged, flatlock, pipied
Athletic mesh knits	10-70/12-80	10/15-1.5/2.5mm	marking pens, tape	double sewn, serged, zigzag
Tricot knits	8/60-12/80	12/2mm	outward notches, chalk, soap	double sewn, twin needle
Sweater knits	10/70-14/90	10/12-2.2.5mm	pins, thread	double sewn, zigzag, serged
Stretch terry/velour	10/70-14/90	10/12-2.2.5mm	marking pens, chalk, soap slivers, pins	plain, double sewn, pipied, welt,
Action knits	10/70-14/90	10/2.5mm	chalk, soap sliver, marking pens, pins	stretch, twin needle, serged
Source: Fabric Sewing Guide by Claire Shaeffer.				

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