

Stabilizer & Fabric Matching Guide

This stabilizer & fabric matching guide will help you make the right stabilizer choice based on the weight, quality, and type of fabric that you are using.

When fabric is produced, manufacturers don't anticipate that anything will be added to it. When we're adding the weight and tension of thread and stitches to fabric, that fabric needs to be made stronger and more 'stable' with stabilizer. If the fabric isn't stabilized appropriately, you can experience many 'headaches,' such as poor registration, design segments not lining up, density problems, puckering, gapping, and more.

There are a few rules that can be summarized here: The heavier the fabric you have, the lighter stabilizer you need. The weaker/lighter the fabric you have, the heavier stabilizer you need. One layer of stabilizer is appropriate for 99.9% of projects, and two pieces of tearaway stabilizer is not a good choice when the fabric is best served by one piece of cutaway.

If you are sewing on a flimsy fabric with a stabilizer that is too weak, you'll see gapping, poor registration, puckering, and other embroidery 'nightmares.' Conversely, if you are sewing on a heavy fabric with heavy stabilizer, the result will be bulky, and you're making the machine and needle work harder than what it needs to.

Avoid embroidery headaches - choose the right stabilizer every time with this guide!

Type	Fabric	Quality	Stabilizer Choice
Cotton			
	Canvas	Durable, heavy, coarse	tearaway; if heavy canvas no stabilizer necessary if cap, and cap has buckram, then no stabilizer necessary
	Corduroy	Heavy, textured, ribbed, tight weave	Corduroy Heavy, textured, ribbed, tight weave tearaway if heavy; cutaway if lightweight; heat-dissipating to avoid wetting fabric
	Denim	Heavy, strong, smooth, tight weave	tearaway; if heavy denim no stabilizer necessary
	Drill	Strong, tightly woven, used in suits, pants, gloves	tearaway
	Duck	Heavy, tightly woven. Used in awnings, tents, clothing, tote bags	tearaway if thicker, cutaway if thinner, no backing necessary if very thick

Flannel	Woven, nap on one or both sides	cutaway
Gauze	Sheer, loosely woven, stretchy	cutaway, with spray adhesive
Gingham	Lightweight, woven knit	cutaway
Muslin	Woven, coarse	cutaway with adhesive, or stickyback
Organdy	Thin, slippery	cutaway with adhesive
Percale	Closely woven, light weight	cutaway
Pique (golf shirt)	stretchy, woven, porous knit	Cutaway, topping optional
Poplin	Woven, twill	cutaway, possibly tearaway depending on weight
Sateen	Cotton fabric with a satin weave	cutaway
Seersucker	Lightweight cotton, textured, bumpy	cutaway with adhesive
Sweatshirt	Smooth, stretchy	cutaway
T-shirt	Smooth, woven, stretchy	cutaway or tearaway depending on quality
Terrycloth	Looped fabric, high pile	cutaway or tearaway, topping
Velveteen	Cotton fabric with velvet-like pile	sticky-back cutaway

Wool (Alpaca, Mohair, Angora, Camel, Cashmere, Vicuna)

Broadcloth	loose weave, sturdy	cutaway
Felt	Lightweight, entangled not woven	cutaway
Flannel	Soft, lightweight, nap on one or both sides	cutaway
Gabardine	tightly woven twill, smooth	cutaway
Herringbone	tightly woven twill, textured	cutaway
Jersey	knit, lightweight	cutaway
Merino	soft, fine, smooth	cutaway
Oatmeal	durable, textured, lightweight, soft	cutaway
Sharkskin	woven, shiny, smooth	cutaway
Tweed	woven, textured, rough and flexible	cutaway

Silk (strongest natural fiber, oldest textile, fibers harvested from cocoon of silkworm)

Brocade	Woven, usually with manufactured/man-made fibers	tearaway
Chiffon	Transparent, lightweight, thin	tearaway
Dupioni	Lightweight, uneven threads result in "raw" appearance	tearaway
Organza	Sheer, lightweight, thin	tearaway, light spray adhesive if necessary
Broadcloth	Lightweight, sturdy, crisp	cutaway
Linen	"Raw" appearance	cutaway with spray adhesive or sticky-back
Satin	Satin weave on one side	cutaway with spray adhesive or sticky-back

Linen (from flax, strong, 2-3 times the strength of cotton, sturdy, smooth, lint-free)

Butcher's Linen	Sturdy, heavy, used for sturdy clothing (aprons) and can be used as interfacing	cutaway
Damask	Patterned weave	cutaway
Venise	Thin damask, patterned	cutaway

Manufactured/Man-Made

Acetate	Lightweight, resilient	cutaway
Acrylic	Lightweight, thin	cutaway
Polar Fleece	Lightweight, breathable polyester	cutaway
Nylon	Strong, elastic, smooth	cutaway, with spray adhesive or sticky-back
Polyester	Strong, stretchy	cutaway, with spray adhesive or sticky-back
Rayon	Strong, soft, silky, lightweight	tearaway
Spandex	Elastic, stretchy, used in exercise clothing, hosiery	cutaway, with spray adhesive or sticky-back

Other

Leather	durable, smooth, strong	cutaway for thinner, like lambskin; tearaway for thicker, like cowhide
Suede	smooth, durable, low nap, possible texture, possible stretch	cutaway for thinner; tearaway for thicker,
Velvet	smooth, nap of varying heights, possible stretch	sticky-back, heat-dissipating to avoid wetting fabric, topping

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