

March 2008 Newsletter

Textiles 101 – Cotton vs. Polyester fabrics

As a quilter or seamstress, I am sure that you are familiar with both the terms cotton and polyester. I remember my mother having a dislike for 100% cotton, because of its propensity to wrinkle. Polyester on the other hand does not have the “wrinkle” problem, but has other issues that need to be considered when choosing particular fabrics.

Why not polyester? Polyester is a synthetic or man-made fiber. It is a petroleum/coal based product which will melt when exposed to heat. If the fiber content of a fabric is in question, doing a burn test on a small square of fabric will cause polyester to burn and melt at the same time. It will give off a sweet smelling black smoke while burning and any portion that drips will cling and adhere to any surface that it lands on.

If you consider the property of polyester while burning, it probably goes without saying it will melt under a hot iron. Also, it is more likely to stretch and pucker when sewn and pressed.

Polyester cotton mixed? The problems with sewing cotton and polyester mixes are several. Along with the pucker and stretch issues, polyester will deteriorate cotton threads over time. So, if you are piecing a cotton quilt with polyester thread, the polyester will actually “eat” away the cotton over time and you will be left with deteriorated cotton pieces. Polyester cotton blend fabrics tend to pill and ball up over time.

Also, polyester is stronger than cotton. If you piece a cotton fabric with cotton and polyester mixed thread, under stress the thread is more likely to tear the cotton fabric, before the thread itself will break. In an ideal situation, you would rather have the thread break or pop, because it will be easier to repair. Long arm quilting or hand quilting will create the same issues.

On the other hand a cotton thread, used to sew or quilt polyester fabric, will not be as strong as the fabric which has been sewn and the threads will pop and break. Also, the cotton thread will not have the stretch and give of the polyester fibers in the fabrics – so it is even more likely to fail under this application.

Why use quality cotton? Cotton is a natural fiber, created from the pod of the cotton plant. Cotton will absorb 24-27 times its own weight in water, and is stronger wet than dry. It can withstand higher temperatures without burning and holds dyes more effectively. Cotton is the principle clothing fiber used throughout the world and irons well under high temperatures. It holds up well over time and looks beautiful for years to come.

When doing a burn test on a small piece of cotton fabric, the item will produce a steady flame that smells of burning leaves and produce a dry crusty ash.

Cotton because of its natural construction will create a more stable product when completed. It does not pucker and stretch when sewn. It is important to use find quality cottons, as the color is less likely to bleed. A 100% cotton fabric will not dull your rotary cutter or needles. It will not pill up when washed. If grain is considered and proper sewing techniques are used, cotton will stand the test of time and remain beautiful for generations.

Using a cotton thread with 100% cotton quality fabric will produce a quality product. My mother used to say “If it is worth doing, it is worth doing right”. I think this applies to the subject of fabrics.

I used to do create and sell crafts in my home. I would buy very cheap, discount store cottons to tea dye for that “antique” look. I learned very quickly the order in which I could dye my fabrics. If I was using quality cottons, I dyed them first. The discount store reds, blues, blacks, and greens came last (in that order). Because of the quality of the dyes in those fabrics, they would bleed their colors into my tea and I would have to start over or ruin all of my fabrics. In fact, I still have some green fabrics that were so discolored; I was never able to find a suitable use for them.

I don't do crafts anymore, but I learned a valuable lesson. If I was going to work long hours on a quilt, I was not going to use discount store fabrics. The materials were not worth the effort for a product that could be ruined just by hot water and heat. A quality 100 % cotton fabric, constructed with 100% cotton thread will produce a high quality result that is machine washable, if you desire to do so.

The reason that Heirloom Patch carries Presencia thread is that they are made from high quality, long threads of Egyptian cottons. They produce the strongest cotton thread on the market, which does not produce or create lint in your sewing machine. We searched and attended classes at the 2007 Spring Quilt Market to find this thread. It is not stocked in most stores at this time. We will be adding a full line of this thread to our online catalog as quickly as possible. All of Heirloom Patch kits come with a spool of Presencia thread. We will also be adding Presencia Embroidery Floss at some point in the future. It is the only floss on the market that can be bleached by chlorine bleach and still hold its original color.

I hope that this information has been educational for you. I have gathered much of the information from many sources over the years, but especially from Beckie Olson of Thimble and Thumb. I will use and do use information from her book “Quilts by the Slice, second edition” that was published in 1987 & 1992, but is still valid and helpful today. Beckie is a champion for

proper quilting techniques and a wealth of knowledge to me. Her books can be found on [amazon.com](https://www.amazon.com), but are not currently in print.