

Dealing with Batting and Fiberfill

Submitted by Jane Zellers

Batting is defined in the dictionary as “fibers wadded into sheets.” The industry’s definition is a “soft assembly of carded fibers.” It is one of the most essential parts of a quilt or comforter. Without it, there is no “quilt” on a quilt. Fiberfill is a manufactured fiber used heavily in skiwear, coats, and many household items.

Batting/Fiberfill is a non-woven construction; before manufactured batting was available, people made batting at home. Years ago, small amounts of cotton or wool were laid side by side between the two outer layers of fabric, and closely sewn together to form a quilted pattern. Many antique quilts were made from silk, linen and wool fibers. The most common preferred fiber was cotton, with worn out quilts used as batting.

Beware of the fiber content and the closeness of the quilting when determining the serviceability of a quilt or comforter. The best quality batting can still shift in cleaning if the batting is not anchored or sewn securely.

History of Batting:

Studying the battings used has done much of the dating of antique quilts. With the introduction of the cotton gin, you began to see more seeds in the filler used. Prior to this, seeds were removed by hand, which resulted in a far better job than the early cotton gins. Quilts made in the first quarter of the nineteenth century had many seeds. Improvements to the cotton gin led to few seeds left behind in the cotton. A quilt batting with as few as two or three seeds to the square inch dates the quilt to around 1830. A quilt batting with a seed or two every few inches leads us to believe the quilt was made around the 1850’s. Between 1840-1860, quilting was so popular, women were demanding better products to use for fillers, with very few seeds. Today, you see some cotton battings with small chips of seed.

Quilters and manufacturers must be careful when using batting that has many seeds. The dark specks from the seed can readily show through white and light colored fabrics. If there is any oil in the chip, it can readily stain the fabric. This type of batting is to be used with muslin and medium-dark colored fabrics.

Since cotton batting tends to stick to the outside fabric layers, it is easier to quilt under a machine. Polyester battings tend to stretch, slide and distort more, making it more difficult to quilt. Polyester is a manufactured polymer, which provides uniformity and consistency of supply, which cannot be equaled by natural fibers.

Many quilters are looking for a distinct look of shrinkage after washing; this is why cotton is preferred over polyester by many people. Anyone understanding batting, realizes the importance of selecting the proper batting for a comforter, quilt, or throw.

The size of the filament is referred to by denier, which is a number system rating fineness. The lower the denier, the finer and softer the fiber, and more drapable the finished batting. When rating the fiber, the higher the number (denier) the stiffer and coarser the fiber. The finer the fiber (lower denier) requires more fibers used per square inch, resulting in more crossovers and bonding points for stability, which is an advantage.

Quilt battings have very specific purposes, so choosing the correct fiber is a very important step. Many processes are used when producing batting, such as resins, mechanical entanglement, and a thermal process used to stabilize a thermoplastic structure.

One of the first companies to produce batting commercially perfected a method of producing cotton batting in the mid 1840's. They glazed sheets of cotton by coating a slab of marble with starch paste, laying a web of cotton on it, and then peeling it off. This "web" was hung on a clothesline to dry, resulting in a rather slow production.

Remember: Each bonding point secures the fibers, and the more bonding points and crossovers you have, the less chance you have for shifting to occur.

Some fibers can be treated to create more fullness and bulk to the fiber. The longer the fiber, the less chance it has for migration and bearding (working its way through the surface fabric) to occur. Resiliency is very important since fibers that stay crushed become thinner, losing their loft and insulating power. Finishes can also be applied to enhance washing and drapability.

The larger the fiber, the fewer fibers it takes to fill the same space, resulting in a less stable construction due to fewer crossovers and bonding points. I'm sure you are beginning to understand the importance of the manufacturer selecting the proper batting to be used in a product and how it can affect its' end use, in dry-cleaning, wetcleaning, and washing.

Much of the following information refers to quilts that may be of sentimental value, a family heirloom or your everyday quilt. Reading this will help you understand the need for handling these pieces with care, whether it is an antique piece or just recently purchased in a department store. You must determine how "fragile" the quilt is so damage does not take place. It is in your best interest to ask the age and value of a quilt that may be in question.

Types of Batting:

Polyester fibers can be crimped as they are extruded from the spinneret to add more bulk and loft to the fiber. Due to the ability to create whatever length polyester fiber you chose; using polyester can be an advantage to a degree because the longer the fiber, the less chance for migration. Since polyester does not absorb well, it means quick drying.

Given the advantages, there are also disadvantages when using polyester for batting. Polyester feels very warm to some people, since it holds the heat next to the body. Because polyester fibers do not breathe, it makes some people feel as though they are wrapped in plastic.

Polyester batting is somewhat transparent, allowing the color of the backing fabric to shadow

through to the top. On white and pastel shades, this transparency appears as a dingy, dull color.

Cotton fibers were not used very heavily in the 70's and 80's. The interest in using cotton as a batting is becoming more popular again since it has its' advantages as well. One of the most important characteristics of cotton is the fact that it can breathe, which makes it very comfortable. This fact creates an entirely different comfort level than polyester, which does not breathe. Unfortunately since cotton is a natural fiber, it cannot offer the same consistency as polyester, therefore the length of the fiber used cannot be controlled to the same degree as polyester.

The finer the fiber, the better it is for quilt batting. Cotton fiber length varies according to the type of cotton used. The longer the cotton fiber is, generally the more expensive the fiber becomes. Shorter fibers (generally less expensive) make a denser web, thus more shrinkage than a web made from longer fibers. Due to the compactness of the fibers, fibers short in length are more difficult than long fibers when quilting by hand. The advantage of the short, cotton fibers used in hand-made quilts is the ability to shrink, giving it an antique look.

Since cotton batting is opaque, the light will not pass through the batting, allowing no dingy appearance as in polyester.

Wool fibers have been used as quilt battings for many years. Wool fibers have barbs, giving it a loft that allows it to return to its original shape, giving it great resiliency.

Wool batting used today is made by blending fibers from various breeds averaging in length of 2-3 inches. The finer the wool fiber, the more likely it is to beard. Before wool fibers are used for batting, they are scoured (which removes the lanolin) and dried, which pre-shrinks the wool fiber. Since wool is a very forgiving fiber, it is easy to work with during manufacturing.

Silk fibers are not currently commercially manufactured as batting. Since silk is very lightweight and has excellent body, it would make a most desirable batting. Unfortunately the high cost of producing batting from silk is cost prohibitive.

On dark colored fabrics, bearding can be very apparent, since the white fibers poke through the dark fabric. The migration of the fibers through the surface fabric is a good indication the incorrect batting has been chosen.