

BATTING TERMINOLOGY

BEARDING

The migration of fibers through the quilt top or backing fabric. There is a difference between bearding and "pokies". "Pokies" are batting fibers that are punched through the quilt sandwich along a stitching line on the backing fabric, usually due to a dull needle or 'neps' in the batting. They might also be caused by poor quality thread. According to Heather Purcell of Superior Threads (www.superiorthreads.com), "*Batting 'pokies' may be caused by any thread with a lot of lint attached to it, like spun polyester. These 'rough' threads pull batting fibers through fabric along the stitching line, most noticeable with darker threads. Smooth threads are less likely to cause 'pokies'.*"

BLEACHING

Bleaching decolorizes the natural cotton pigments and removes any residual natural woody cotton trash components not completely removed during ginning, carding or scouring. The main process in use today utilizes alkaline hydrogen peroxide bleach. There are environmentally safe bleaches available on the market but in the research done on the battings included in The Ultimate Batting Chart, it was extremely difficult to determine which battings were being processed with safe bleaching compounds.

BONDING

Processes used to hold batting fibers together to prevent bearding. It can be low melt/thermal bonded or resin bonded.

- THERMAL

"Low melt" polyester fibers are combined with standard polyester fibers and heated by means of an oven, radiant heat or an ultrasonic wave, to a temperature that melts the low melt but not the standard polyester. This type of batting is bonded all the way through. Glazene is a trademarked type of thermally bonded batting. In Glazene batting, the carded fibers are run through two heated rollers that compress the product, bonding the fibers together on the top and bottom. Thermal bonded polyester should not be dry cleaned because heated chemicals could break down the bond. Although it is a softer batting, it won't hold up as well in washing and may beard more than resin bonded batting. Thermal bonded batting is much cleaner and less expensive to make.

- RESIN

A light resin coating or glaze is applied (generally sprayed) to both sides of the carded fibers. This coating adds strength and though resin bonding does not completely eliminate bearding, it reduces it more than any other technique with polyester and wool battings. The higher the resin content, generally, the stiffer but more durable the batting. Less resin means a softer less durable product. High grade, softer resins have been dramatically improved in the past few years and do a much better job of bonding and thus stand up to washing much better than they used to. After the resin is applied, it is heated in ovens to dry and cure the batting. Resin bonded batting will generally have a higher, airier loft, perfect for comforters with less quilting.

CARDED

Carding is the process of brushing raw or washed fibers to prepare them as textiles. A large variety of fibers can be carded, anything from cotton, to polyester, to wool, to alpaca, soy or bamboo. Carded or garnetted

fibers are separated, crosslapped and combed into a web layer. Nothing is done to hold the fibers together. Cotton can be carded and used without stabilizers but quilting must be as close as 1/2" to prevent shifting. Other fibers require bonding to prevent bearding.

DENIER

A unit of measurement of linear density of polyester fiber ranging from micro denier up to 18 denier – the higher the number the stiffer the fiber. 1 denier = 1 gram per 9,000 meters. A microfiber is 1 denier or less with a diameter of about 10 micrometres. (An average human hair is about 72 micrometres = 7.2 denier.) Most manufacturers use 6 or higher denier, non-siliconized fiber.

LOFT

The resilience of fibers as well as the thickness of a batting. Most manufacturers offer a variety of lofts with the same fiber composition.

NEEDLE PUNCHED

After the fibers are carded, they pass through a needling machine. Hundreds of barbed needles pierce the layers and interlock the fibers into a fairly tight-woven product, much like felting. The loft varies depending on the layers of fibers. Fewer layers create a low loft, soft batting. Thicker layers result in added warmth. Since the outside fibers are loose on a needlepunched batting, bearding is more of a problem, especially with polyester, wool and alpaca fibers. Since cotton batting is rarely guilty of bearding, needlepunching is one method used to stabilize it.

NEPS

Minuscule tangles (or wads) of fiber that are sometimes found in cotton and polyester battings that can be difficult to hand quilt through and can dull needles.

SCOURING

Scouring of cotton or man-made fibers removes non-cellulosic compounds including pectins, trash, oils and lubricants and is done to prepare the fiber or fabric for bleaching or dyeing. Cotton scouring is done at high temperatures using sodium hydroxide or related causticizing agents such as sodium carbonate, potassium hydroxide or mixtures thereof. Wool is always scoured in its raw state and requires a milder soap and soda or detergent scour at low temperatures. The conventional cotton scouring process can cause environmental problems due to the highly alkaline effluent. There are environmentally friendly scouring methods currently available which use enzymes (natural proteins) consisting of pectinase, protease, glucanase, and cellulase that act as biocatalysts. Bioscouring of cotton, for instance, breaks down the pectin and removes impurities creating a softer fabric without seriously affecting the environment. The process also reduces water and energy use. When the authors were able to determine if this process is being used on any of the fibers used in batting production it is noted in the comments.

SCRIM

A very thin, sheer layer of polypropylene, similar to interfacing, that is added to batting (generally needlepunched to one or both sides of the batting) during the manufacturing process that aids in holding the fibers together. Battings that contain scrim allow for wider quilting space and are generally more stable and have less stretch than those without scrim.

Scrim can be very hard and fairly stiff or soft and resilient depending on the manufacture. Batting with scrim is more difficult to hand quilt.

SILICONIZED

Siliconized fibers are fibers that are treated with silicon making them very slick. In quilt batting that equates to a softer surface that is easier for a needle to slip through, thus making it easier to quilt, especially if hand quilted.

ULTIMATE BATTING CHART
www.villagequiltworks.com

Column Headings on the Ultimate Batting Chart (UBC)

Supplier/Product Batting suppliers are listed alphabetically and their products for a particular category are listed below. The products are listed in the category based on the manufacturer's description of their fiber content, however, please note the discrepancies. ❖ Symbol or flag used to denote a discrepancy. Many of the "100% Cotton" battings are finished with a scrim which adds stability to the batting but since the scrim is synthetic; the batting is no longer 100% pure. The Federal Trade Commission states that , *"The fiber content statement must list the generic name of each fiber that equals 5 percent or more of the product's weight, in order of predominance, and the percentage of the product's weight represented by each fiber, for example, 85% Cotton, 15% Polyester. Fibers that are less than 5% of the weight should be listed as "other fiber[s]."*¹ These discrepancies will be explained as each of the manufacturers are reviewed in the **November 2008, January 2009 and March 2009 issues of Unlimited Possibilities.**

Finish This refers to the method of manufacturing and coating of the main fibers in a batting. Needle punched, carded and bonded, thermal or resin bonded and scrim are all defined in **Batting Terminology.**

Roll Width The UBC focuses primarily on roll batting but most manufacturers are marketing the same batting in packages of various sizes. Contact the manufacturers for that information. Some of the battings are not available on rolls. They are listed as **PO - "Package Only"**.

Stitch Space These are the manufacturer's recommendations, not those of the authors. We may not always agree with those specs. Our opinion is that most 100% cotton batts should be quilted with a maximum spacing of 2" between quilting lines. All other cottons with scrim or blended fibers should have a maximum of 4" spacing.

Color Cotton batts may or may not be bleached. The word "white" means that the batting has been bleached with chlorine or hydrogen peroxide. Organic cotton may have been bleached with chlorine-free bleach. Natural (a light tan) cotton may have flecks of cotton seeds in the batting making it more difficult to hand quilt. Black or charcoal color batts are available for dark pieced tops. Choosing the right color batting for a specific quilt is very important. For instance, if white fabric is used extensively in a quilt top and back, a white batting should be used to retain the "brightness" of the white. Adversely, a dark batting may be more appropriate for a dark quilt, depending on the batting fiber content desired.

Loft & Weight Manufacturers sell their batting by different weights or loft standards. The Ultimate Batting Chart provides both the weight supplied by the manufacturer, either by the square yard or linear yard, and the loft in inches as measured by the authors (after presoaking). Why is this important? When purchasing roll batting, the weight can be deceiving and confusing. A manufacturer may be selling a 3.3 oz. 45" wide roll of batting that is exactly the same batting as their 6.6 oz. 90" wide roll because the weight is measured by **linear yard** (the 3.3 oz. batting is twice as wide on the 90" roll so the weight is doubled when measuring a linear yard). On the other hand, another manufacturer may provide a **square yard** weight. It doesn't matter what the width is, the batting is always the same

¹ <http://www.ftc.gov/bcp/conline/pubs/buspubs/thread.shtm> - For more information about textile labeling requirements, see the FTC business guide, *Threading Your Way Through the Labeling Requirements Under the Textile and Wool Acts.*

weight per square yard. So a 6.6 oz. batting from this manufacturer will be twice as thick as their 3.3 oz. batting. Consequently, it is difficult to compare batting between manufacturers. One manufacturer measures the weight of their 90" batting by the linear yard and their competition measures the weight by the square yard for the same 90" width. The 3.3 oz batting of the first manufacturer will be much thinner than the 3.3 oz of the second manufacturer because the weight is spread out over a larger area (36" x 90" versus 36" x 36").

When batting is purchased either on a roll or by the package, compression and wrinkling occurs. Most manufacturers recommend that their batting be opened flat and allowed to relax for a period of time so the fibers can "spring back". That doesn't always remove wrinkles or bring the batting back to its original state. **Tip: Placing it in a dryer on low heat for a few minutes will usually bring the batting back to its original loft.** The batting samples were calibrated **after** presoaking to obtain the most accurate loft measurement.

Presoak Shrinkage Batting containing natural fibers (100% or blends) was presoaked by Marcia to determine the percentage of shrinkage. To increase accuracy, Marcia performed her presoak test using only the 15" cut batting samples, no fabric or quilting, so the results would show only shrinkage of the batting, not other components. Some of the manufacturers suggest that their batting not be prewashed or presoaked. They were tested anyway to give everyone a fair playing field. Admittedly, a 15" square of batting is not a real accurate way to test shrinkage because of its size, but it will give you a pretty good idea of how much a particular batting shrinks. If a sample of a particular batting was not available, it is noted as "NT" - Not Tested. None of the 100% polyester battings were tested for shrinkage because in all previous tests we've seen, the shrinkage was minimal (1% or less).

Marcia's Presoak Method:

The natural fiber and blended battings were cut into 15" squares and presoaked as follows:

- The batting was soaked in a washtub of warm (started at 95°) water for 15 minutes. It could also be placed in a top loading washer and submerged in water with NO agitation.
- Some of the water was squeezed out of the batting and put through a spin cycle in my Kenmore front load washer.
- All samples were dried in a dryer on delicate/low heat (90°), removing squares as they dried. If a large batt is being dried, check it frequently and redistribute it to avoid any "hot" spots.
- The squares were measured after presoaking and drying and those figures are recorded on the chart.

Migration Test

Debbi cut two 15" batting squares and sandwiched them with 100% unwashed cotton - one side black and the other cream (Cara Collection BLACK MAGIC and Robert Kaufman/and or Cara Collection Cream Solid). One sample square was washed and dried. For comparison, the second sample square was not washed. Each square was quilted and the edges were pinked, not bound, so there were raw edges around the samples. This allowed Debbi to see how much the batting shrunk in comparison to the fabric. The main object of the test was to determine batting fiber migration (to be revealed on the dark side of the sample) and to determine it's quilting properties (spacing of quilting, vintage look, etc). The samples were soaked for 10-15 minutes in tepid water in her top load washer, spun and rinsed (avoiding agitation) and dried in a low heat dryer. Because the edges of the squares were open, occasionally some visual lint appeared on the dark part of the samples after they were dried. Debbi used a lint roller to remove the excess lint. If some fibers continued to migrate and could not be removed with the lint

roller, she would tug on the unsightly fiber. If there was a slight resistance as it pulled through the quilt fabric, she would determine that the batting was migrating (bearding) through the fabric. She would even duplicate the test on all samples to see if the results would be different. The test also provided a visual picture of what a quilt may look like after it was machine quilted and washed. (Debbi did not presoak the batting squares before she assembled her samples.) **Tip:** Consider making samples or even sample quilts using the battings that you prefer to use so that you (and your customers) have a visual guide to assist you in the selection of batting for a particular project.

Migration Test Symbols

The samples were black on one side and light on the other so that after the samples were quilted, washed and dried, it could be determined if migration or bearding took place. This was revealed on the dark side of samples. Some samples did not reveal migration until after the second test.

S = SLIGHT Washed sample revealed random fiber migration.

M = MODERATE Washed sample revealed consistent or even migration.

E = EXTREME Most noticeable on dark side of washed sample, but some on light side. Very noticeable migration visible and migration occurred during the quilting process prior to washing.

Comments

The last column recommends usage of each batting, occasionally supplying comments from the authors or the manufacturer. It is not the purpose of this study to promote any one batting or manufacturer. The goal is to provide the facts.

I can not tell you how many customers I have had over the years that show up with their beautiful quilt top that they have spent numerous hours composing and piecing and when I ask them what type of batting would they like in their quilt, they respond by saying "What is the cheapest!". Price often times will dictate a customer's final decision. But we owe it to ourselves and to our customers if we quilt for others, to either provide or recommend battings that will help preserve their work and meet their budget criteria.

I like to work with customers and help them understand that there is more to batting than meets the pocket book.

I will ask questions like:

- What will be the laundering regiment?
- Is it a wall hanging, show quilt, etc?
- Desired weight of quilt.
- Breathable vs. plastic bag type warmth!
- Puffy or flat?

These are just some of the questions that I ask of my customers.

Note: When I have this information it helps me decide how to quilt the quilt top and what types of threads to select that work the best.

The Ultimate Batting Chart information will help you understand the different types of battings and their recommended quilting properties.

Take the time to educate yourself on battings and you will find that you are empowered with a knowledge that will enhance your reputation as a quilter and provide you with the best results.

100% Cotton Batting

ULTIMATE BATTING CHART

www.villagequiltworks.com

Retailer Batting Name	Finish ¹	Roll Width	Stitch Space ²	Color	Loft (inches)	Oz. Wt Per Sq Yd ³	Presoak Shrinkage ⁴	Recommended Quilting/Comments ⁵
Air-Lite Colour Me Cotton 100% cotton (4.07 oz. for 50" width)*	Needlepunched with polyester scrim	50" 100" 130"	8"	Natural	1/8	2.93	NT	Hand or machine S
Airtex 100% Natural Cotton	Needlepunched with polypropylene scrim	96"	6"	Natural	3/32	4.2 Natural	14 7/8 sq	Hand or machine S
100% Bleached Cotton	Needlepunched with polypropylene scrim	96"	6"	White	3/32	4 Bleached	14 7/8 sq	Hand or machine S
EESchenck Co. Natures Best™ Cotton	Needlepunched with polypropylene scrim	45" 96"	10"	Natural	3/32 Natural	4.2 Natural	14 7/8 sq	Hand or machine S
Natures Best™ Bleached Cotton	Needlepunched with polypropylene scrim	45" 96"	10"	White	1/8 Bleached	4 Bleached	14 7/8 sq	Hand or machine S
Fairfield Poly-fil™ Cotton Classic 100% Organic Cotton	Water based light acrylic spray bond	PO	3-5"	Natural	1/8	3	14 1/2 x 15	Hand or machine Designer recommended
Poly-fil™ Natural Cotton 100% Cotton	Needlepunched No scrim	90"	2-4"	Natural	1/8	3	14 3/4 sq	Great drape Quilted clothing NT
Soft Touch Cotton 100% Bleached Cotton	Needlepunched No scrim	90"	2-4"	White	1/8	3	14 7/8 sq	Great for quilted clothing and gives a wonderful antique look once the finished quilt is washed S
Fiberco Simply Cotton 100% Cotton	Needlepunched with polypropylene scrim	90" 96" 120"	10"	Natural	3/32 Natural	4.2 Natural	14 7/8 sq	Hand or machine Old Fashioned cotton Long staple cotton, no chemicals or bleaching S
Simply Cotton 100% Bleached Cotton	Needlepunched with polypropylene scrim	90" 96" 120"	10"	White	1/8 Bleached	4 Bleached	14 7/8 sq	Hand or machine Old Fashioned cotton Long staple cotton S
Hobbs Heirloom® 100% Natural Unbleached Cotton with scrim binder	Needlepunched with polypropylene scrim	96"	8-10"	Natural	1/8"	3.5	14 3/4 x 15	Machine Pre test with light fabrics

¹ See Batting Terminology

² Stitch space – this is the manufacturer's recommendations not the author's

³ Weight per square yard provided by manufacturers

⁴ Presoaked in warm water and dried in a warm dryer

⁵ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

*Ounces for 100" and 130" widths not provided.

Retailer Batting Name	Finish⁶	Roll Width	Stitch Space⁷	Color	Loft (inches)	Oz. Wt Per Sq Yd⁸	Prewash Shrinkage⁹	Recommended Quilting/Comments¹⁰
Heirloom® 100% Bleached Cotton with scrim binder	Needlepunched with polypropylene scrim	96"	8-10"	White	1/8"	3.5	14 1/2 x 14 7/8	Machine Pre test with dark fabrics
Heirloom® 100% Natural Unbleached Cotton	Needlepunched	96"	4"	Natural	1/8"	3.5	14 1/2" x 14 7/8"	Machine or hand Pre test dark & light fabrics Great for hand quilting M
Heirloom® 100% Natural Bleached Cotton	Needlepunched	96"	4"	White	1/8"	3.5	14 7/8 x 15	Machine or hand Pre test dark & light fabrics Great for hand quilting M
Tuscany® 100% Unbleached Cotton	Needlepunched	96"	4"	Natural	1/8"	3.5	14 7/8 x 15	Machine or hand Nice vintage look once quilt is washed Nice drape Gently pre-wash if desired Pre test on dark & light fabrics M
Tuscany® Bleached Cotton	Needlepunched Packaged batt has No scrim Roll batting has polypropylene scrim	96"	4"	White	3/16"	3.3	14 5/8 x 15	(Same as above) Hand or machine Pre test with dark fabrics M - Packaged
Linda's Electric Quilters Linda's Choice Bleached Cotton	Needlepunched with polypropylene scrim	108"	10"	White	3/16	18	12 3/8 sq (Started w/ 13" sq)	Machine Excellent for wall hangings and show quilts. Extra dense batting.
Mountain Mist 100% Bleached Natural Cotton	Carded Resin bonded Lightly needled	PO	2"	White	1/4"	3.1	NT	Hand or machine Soft drape Antique look
Blue Ribbon All Cotton	Carded Resin bonded Lightly needled	PO	3"	White	1/8"	2.5	14 1/4 x 14 3/4	Hand or machine Soft drape

⁶ See Batting Terminology for explanations

⁷ Stitch space – this is the manufacturer's recommendations not the author's

⁸ Weight per square yard provided by manufacturers

⁹ Prewashed in warm water and dried in a warm dryer

¹⁰ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

Notes: Fairfield advertised "No need to presoak". Mountain Mist and Quilters Dream Cotton recommend no prewashing of their batting. When I did presoak the Mountain Mist products, they became a little distorted in the dryer - therefore hard to measure accurately.

Retailer Batting Name	Finish ¹¹	Roll Width	Stitch Space ¹²	Color	Loft (inches)	Oz. Wt Per Sq Yd ¹³	Prewash Shrinkage ¹⁴	Recommended Quilting/Comments ¹⁵
Mountain Mist White Rose & Cream Rose	Needlepunched No Scrim No Resin	90" 108"	6"	White Cream	3/32"	3.3	14 1/2 x 14 7/8 14 1/4 x 15	Hand or machine Soft drape S
Cotton Blossom – A Touch of Luxury™ Completely Cotton	Carded & resin bonded & lightly needled	PO	3	Natural	1/8- 1/4	2.5	14 7/8" sq	Hand or machine Soft drape
Quilters Dream Dream Cotton Request Select Deluxe Supreme	Needlepunched/ no scrim or resins	46" 93" 122"	8"	Natural White	1/16	3	15 sq	Hand or machine S
Natural White				3/32	4	14 5/8 x 14 3/4	Hand or machine S	
Natural White				1/8	6	14 1/2 x 14 7/8	Machine S	
Natural White				3/16	8	14 1/2 x 14 7/8	Machine S	
Warm Co Warm & Natural	Needlepunched with polypropylene scrim	34" 45" 90" 124"	10"	Natural	3/32"	4	14 7/8 sq	Hand or machine Most popular for machine quilting Breathable warmth S
Warm & White	Needlepunched with polypropylene scrim	34" 45" 90" 124"	10"	White	3/32"	4	15 sq	Hand or machine Most popular for machine quilting Breathable warmth
Soft & Natural	Needlepunched No Scrim	90" 124"	6"	Natural	1/4"	4	14 3/8 x 14 3/4	Hand or machine Ideal for people with chemical allergies S
Winline Winline Cotton Natural	Needlepunched with polypropylene scrim	90" 96" 120"	10"	Natural	3/32"	4.2	14 7/8 sq	Hand or machine S
Winline Cotton Bleached	Needlepunched with polypropylene scrim	90" 96" 120"	10"	White	1/8"	4	14 7/8 sq	Hand or machine S

¹¹ See Batting Terminology for explanations

¹² Stitch space – this is the manufacturer's recommendations not the author's

¹³ Weight per square yard provided by manufacturers

¹⁴ Prewashed in warm water and dried in a warm dryer

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Cotton/Poly Blends

Retailer Batting Name	Finish ¹	Roll Width	Stitch Space ²	Color	Loft (inches)	Oz. Wt Per Sq Yd ³	Presoak Shrinkage ⁴	Recommended Quilting/Comments ⁵
Air-Lite Colour Me Cotton & Polyester 80% Cotton 20% Polyester (4.07 oz for 50" width)*	Needlepunched with polyester scrim	50" 100" 130"	8"	Natural	1/8	2.93	14 7/8 sq	Machine or hand Washable S
Airtex 50/50 Cotton/Polyester 50% Bleached Cotton 50% Polyester	Needlepunched with slick polypropylene scrim	96"	6"	White	1/8	4	14 7/8 sq	Hand or machine Fiber migration on dark fabric after test S
80/20 Cotton/ Polyester 80% Cotton 20% Polyester	Needlepunched with slick polypropylene scrim	96"	6"	Natural	3/32	4.2	14 7/8 sq	Hand or machine Preferred by longarm quilters Fiber migration on dark fabric after test S
Fairfield Machine 60/40 Blend 60% Bleached Cotton 40% Polyester	Needlepunched with polypropylene scrim	124"	8"	White	1/8	4	-15" sq	Machine only Most popular Pre test on dark fabric S
Quilters 80/20 80% Cotton 20% Polyester	Needlepunched No scrim	PO	2-4"	Natural	1/8	3	14 1/2" sq	Hand or machine Pre test on dark fabric S
Fiberco Soft & Elegant 80% Cotton 20% Polyester	Needlepunched with polypropylene scrim	90" 96" 120"	10"	Natural	3/32	4	14 3/4" sq	Hand or machine Most popular Long staple cotton, no chemicals or bleaching S
Hobbs Heirloom® Premium 80% Cotton 20% Polyester	Needlepunched & acrylic resin bonded	96" 120"	4"	Natural	1/8	3	14 3/4 x 15	Hand or machine Most popular for machine quilting
Heirloom® Bleached 80% Cotton 20% Polyester	Needlepunched & acrylic resin bonded	108"	4"	White	1/8	3	14 5/8 x 14 1/4"	Hand or machine Nice for light colors

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² Stitch space – this is the manufacturer's recommendations not the author's

³ Weight per square yard provided by manufacturers

⁴ Presoaked in warm water and dried in a warm dryer

⁵ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

*Ounces for 100" and 130" widths not provided.

Retailer Batting Name	Finish⁶	Roll Width	Stitch Space⁷	Color	Loft (inches)	Oz. Wt Per Sq Yd⁸	Presoak Shrinkage⁹	Recommended Quilting/Comments¹⁰
Hobbs Heirloom® Black 80% Cotton 20% Polyester	Needlepunched & acrylic resin bonded	108"	4"	Black	1/8	3	NT	Hand or machine Nice for dark colors NT
Heirloom® Fusible 80% Cotton 20% Poly	Needlepunched & bonded with acrylic & water soluble fusible resin	96"	4"	Natural	1/8	3	14 ½ x 14 7/8	Hand or machine Great alternative to pin basting Fusible comes out after washing
Mountain Mist Gold 50% Bleached Cotton 50% Polyester	Resin bonded Lightly needled	48" 96" 120"	3"	White	1/8-1/4	2.4	14 3/4 x 15	Hand or machine Designed for longarm Soft drape
Gold Fuse (Iron Baste) 50% Bleached Cotton 50% Polyester	Carded Light fusible resin bonded	PO	3"	White	1/8-1/4	2.4	NT	NT
Quilters Dream Blend 70% Cotton 30% Fine poly microfibers	Carded, crosslapped and needlepunched with polypropylene scrim	93" 122"	12"	Natural	3/32	4.5	14 7/8 sq	Made for machine quilters in mind S
Warm Co Warm Bond 80% Natural Cotton 20% Low melt Polyester	Thermal Bonded No Scrim	45" 90" 124"	6"	Natural	1/4	4	14 3/4 sq	Hand or machine Test on dark fabrics S
Warm Blend 50/50 Cotton/Poly	Needlepunched with polypropylene scrim	34" 45" 90" 101" 124"	10"	White	3/32	4	-15 sq	Hand or machine Test on dark fabrics S
Winline Cotton/Poly 80% Long Staple Cotton 20% Polyester	Needlepunched with polypropylene scrim	90" 96" 120"	10"	Natural	3/32	4	14 ¾" sq	Hand or machine Excellent antique look S

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100% Polyester

ULTIMATE BATTING CHART

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Air-Lite Bond Tight Extra High Loft (30 oz) High Loft (4.4 oz) Low Loft (3.3 oz) Silicon Polyester	Thermal bonded Polyester lined on both sides Double Laminated	100"	10"	White	1 3/4 1/3 1/4	10.79 1.58 1.19	Machine or hand Low Loft is their best seller 10" stitch space seems to large for a poly batting to leave unquilted S
Micro Safe Hollow Fill Polyester (6.6 oz)	Thermal (fusion) bonded	100"	6"	White	1/8	2.37	Machine or hand Great for clothing M
Quilting Choice Hollow Fill Polyester (3.3 oz for 50" width)* ⁵	Thermal (fusion) bonded twice	50" 100" 130"	10"	White	1/8	2.37	Machine or hand Great for clothing 10" stitch space seems to large for a poly batting to leave unquilted M
Airtex Polyester 3.3 oz 4.4 oz 6 oz 8 oz	Poly-vinyl acetate Resin Bonded	48"	6"	White	3/8 5/8 3/4 1	2.25 3 4.5 6	Hand or machine Pre-test on dark fabrics S
Polyester 6 oz 12 oz 16 oz 20 oz	Poly-vinyl acetate Resin Bonded	96"	6"	White	3/8 3/4 1 1 1/2	2.6 4.5 6 7.5	Hand or machine 16 oz - recommended by Karen McTavish for Trapunto work Pre-test on dark fabrics S
EESchenck Co. Bonded Polyester 6 oz. 8 oz. 12 oz.* 16 oz.*	Resin Bonded	48" 96"	3"	White	1/2 3/4 1/2 3/4	4.5 5.62 4.5 5.62	Hand or machine Migration more prominent in second washing M S M S
Fairfield Traditional	Needle- punched	45" 81" 90"	4"	White	1/8	3.5	Handles like a blanket Great for tied quilts craft projects S
Low-Loft	Low Melt bonded	PO	3"	White	1/4	2	Pretest on dark fabric S

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⁵ Ounces for 100" and 130" widths not provided by supplier.

*Same as 6 oz. and 8 oz. respectively.

Retailer Batting Name	Finish ⁶	Roll Width	Stitch Space ⁷	Color	Loft inches	Oz. Wt Per Sq Yd ⁸	Recommended Quilting/Comments ⁹
Fairfield Extra-Loft	Low Melt bonded	45"	3"	White	3/8	3.5	Hand or machine Pretest on dark fabric S
Hi-Loft	Low Melt Bonded	45"	3"	White	1/2	6	Hand or machine Hi Loft for machine and tied quilts. S
Fiberco Poly Perfect Polyester	Needle-punched with poly-propylene scrim	90"	10"	White	3/32	3.8	Hand or Machine Pretest on dark fabric S
Hobbs Polyester 3.3 oz 4.5 oz 6 oz 8 oz 10 oz	Resin Bonded	48"	3-4 3-4 4-6 6-8 6-8	White	1/4 1/2 3/4 1 1 1/4	2.25 3 4.5 6 7.5	Tested the 6 oz batting. No migration
Polyester 3.3 oz 4.5 oz 6 oz 8 oz 10 oz	Resin Bonded	96"	3-4 3-4 4-6 6-8 6-8	White	1/4 1/2 3/4 1 1 1/4	2.6 3 4.5 6 7.5	Tested the 6 oz batting. No migration
Cloudloft® Hi Loft 100% polyester	Resin Bonded	PO	6"	White	1/2	5	Hand or machine NT
Polydown® 100% Siliconized Polyester	Resin Bonded	108"	4"	White	1/4	3	Hand or machine No migration
Tuscany® 100% Siliconized Polyester	Resin Bonded & lightly thermal bonded	96"	6"	White	1/4	3	Hand or machine Goes through an additional finishing process No migration
Thermore® 100% Polyester	Resin Bonded patented process	45"	6-9"	White	1/16	2	Hand or machine Excellent for quilted clothing, wall and miniature quilts – guaranteed not to beard
Mountain Mist Quilt-Light® 100% polyester	Carded Resin bonded	PO	5"	White	1/8- 1/4	1.8	Hand or machine Soft drape Reduced loft NT
Quality Quilt® 100% Polyester	Carded Resin bonded	PO	5"	White	1/4 -1/8	2.4	Hand or machine Soft drape NT

⁶ See Batting Terminology for explanations

⁷ Stitch space – this is the manufacturer's recommendations not the author's

⁸ Weight per square yard provided by manufacturers

⁹ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

Notes: Fairfield advertised "No need to presoak". Mountain Mist and Quilters Dream Cotton recommend no prewashing of their batting. When I did presoak the Mountain Mist products, they became a little distorted in the dryer - therefore hard to measure accurately.

Retailer Batting Name	Finish¹⁰	Roll Width	Stitch Space¹¹	Color	Loft inches	Oz. Wt Per Sq Yd¹²	Recommended Quilting/Comments¹³
Fatt-Batt 100% Polyester	Carded Resin bonded	PO	4"	White	1/2-5/8	4.5	Machine & hand tied Extra lofty NT
Comfortlof® 100% Polyester	Carded Resin bonded	45", 90"	5"	White	1/4	2.2	Hand or Machine Can be layered without shifting or sliding. No migration
Designers Choice 100% Polyester	Carded Resin bonded	PO	5"	White	1/8-1/4	2.2	Hand or machine Can be layered without shifting or sliding. No migration
Super Fluff® 100% Polyester	Thermal bonded	PO	5"	White	5/8	4.5	Hand or machine Hand tied quilts No harsh resins or chemicals NT
Super Fluff® High Loft Europa 100% Polyester	Thermal bonded	PO	5"	White	1 1/2	8.1	Hand or machine Hand tied quilts No harsh resins or chemicals Extra High Loft NT
Quilters Dream Dream Poly Request Select Deluxe Fine denier poly microfibers	 Needle-punched No scrim, resin or bonding	 60" 93" 122"	 10"	 White/ Black White/ Black White only	 1/16 3/32 1/8	 3 4 6	 Hand or machine S Hand or machine S Machine S
Dream Puff Fine denier poly microfibers	Carded, crosslapped & Thermal bonded	93"	10"	White	1/4	3.5	Hand or machine No migration
Retailer	Finish¹⁴	Roll	Stitch Space¹⁵	Color	Loft	Oz. Wt	Recommended

¹⁰ See Batting Terminology for explanations

¹¹ Stitch space – this is the manufacturer's recommendations not the author's

¹² Weight per square yard provided by manufacturers

¹³ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

Notes: Fairfield advertised "No need to presoak". Mountain Mist and Quilters Dream Cotton recommend no prewashing of their batting. When I did presoak the Mountain Mist products, they became a little distorted in the dryer - therefore hard to measure accurately.

¹⁴ See Batting Terminology for explanations

Batting Name		Width			inches	Per Sq Yd ¹⁶	Quilting/Comments ¹⁷
Warm Co Soft & Bright Hollow Polyester	Needle-punched with polypropylene scrim	45" 90" 124"	10"	White	1/8	4	Hand or machine Big seller to longarmers Lofty finish Excellent Drape M
Warm Fleece	Needle-punched polyester	45	8"	White		4.2	S
Fusible Warm Fleece	Needle-punched fusible polyester	45	8"	White		6	S
Insul-Bright Hollow Polyester	Needlepunched with metalized poly insulating material (Mylar)	22" 45"	10"	White with metallic	1/8	4	Machine Great for pot holders, table pads, etc. S
Winline Loftier 4 - 9 oz in 3 widths each Polyester	Thermal Bonded	48" 96" 120"	6"	White	1/2	1.2	Hand or machine NT
Winline Poly Polyester	Needle-punched with polypropylene scrim	90"	10"	White	3/32	3.8	Excellent for placemats and other quilted projects M

¹⁵ Stitch space – this is the manufacturer's recommendations not the author's

¹⁶ Weight per square yard provided by manufacturers

¹⁷ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

Notes: Fairfield advertised "No need to presoak". Mountain Mist and Quilters Dream Cotton recommend no prewashing of their batting. When I did presoak the Mountain Mist products, they became a little distorted in the dryer - therefore hard to measure accurately.

Other Types of Batting

Retailer Batting Name	Finish ¹	Roll Width	Stitch Space ²	Color	Loft (inches)	Oz. Wt Per Sq Yd ³	Presoak Shrinkage ⁴	Recommended Quilting/Comments ⁵
Back to Back Fiber Products Pacafil 50/50 50% alpaca 50% cotton	needlepunched with polypropylene scrim	90"	6"	Natural	1/8	4	10 1/4" x 9 3/4" *	Manufacturer recommends hand washing and dry flat Great for clothing E Working to improve bonding
Pacafil 60/40 60% alpaca 40% wool	needlepunched with polypropylene scrim	90"	6"	Natural	1/8	4	10 1/4" x 9 3/4" *	Manufacturer recommends hand washing and dry flat Great for clothing M Working to improve bonding
Pacafil 60/40 Dark Alpaca/Dark Wool 60% alpaca 40% wool	needlepunched with polypropylene scrim	90"	6"	Dark	1/8	4	10 1/8" x 10 1/4" *	Manufacturer recommends hand washing and dry flat Great for clothing & use with dark fabrics M Working to improve bonding
Cedarview Farms 100% Canadian Suffolk/Dorset Wool	Open Batts Carded, crossplapped	PO	4	Natural	2 3/4"	5.5	12 x 16	Great loft Natural M (method of testing was against recommended washing) Sample cared for as per recommended on showed S migration
E.E. Schenck Natures Best™ Bamboo 100% Bamboo	Needlepunched with polypropylene scrim	96"	8"	Natural	1/8	4	14.25" x 15"	Hand or machine No chemicals Antibacterial Prewash recommended S
Natures Best™ Bamboo Blend 50% Bamboo 50% Cotton	Needlepunched with polypropylene scrim	96"	8"	Natural	1/32"	4.2	14 5/8" sq.	Hand or machine No chemicals Antibacterial Prewash recommended S
Fairfield Nature Fil™ Bamboo 50% Bamboo 50% Organic cotton	Needlepunched with thin polypropylene scrim	90"	8"	Natural	1/8	3.75	14 5/8 x 14 1/2"	Great drape. Special Prewash care required. Eco friendly Cotton used is certified organic
Nature Fil™ Wool 100% wool fiber	Light acrylic resin	90"	4"	Natural	3/8	?	13 7/8 x 13 1/2"	Machine washable on gentle or normal cycle 100% wool fibers used, but acrylic bonding makes it no longer a 100% product.
Fiberco Simply Bamboo 100% Bamboo	Needlepunched with polypropylene scrim	96"	8"	Natural	1/8	4.2	14 7/8 x 14 1/2"	Hand or machine No chemicals Antibacterial Prewash recommended
Retailer	Finish⁶	Roll	Stitch	Color	Loft	Oz. Wt	Presoak	Recommended

¹ See Batting Terminology

² Stitch space – this is the manufacturer's recommendations not the author's

³ Weight per square yard provided by manufacturers

⁴ Presoaked in warm water and dried in a warm dryer

⁵ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

* Samples provided from supplier were 10 1/4" squares prior to washing for pre-shrinkage test.

Batting Name		Width	Space ⁷		(inches)	Per Sq Yd ⁸	Shrinkage ⁹	Quilting/Comments ¹⁰
Soft Soy Blend 50% Cotton 50% Soy	Needlepunched with polypropylene scrim	96"	8-10"	Natural	1/8	4 – 4.2	14 ¾ x 14 ½	Hand or machine Hand Prewash dry flat prior to quilting. Washable after quilting. Very soft & drapeable. M
Hobbs Heirloom® 100% Wool	Acrylic resin bonded	108"	4"	Natural	1/4	3.3	13 1/2 x 14	Hand or machine Washable Pre test with dark fabrics 100% wool fibers used, but acrylic bonding makes it no longer a 100% product.
Tuscany® 100% Wool	Acrylic resin bonded	96"	4"	Natural	¼	3.3	12 ¾ x 13 ¾	Hand or machine Great for clothing Washable Pre test with dark fabrics 100% wool fibers used, but acrylic bonding makes it no longer a 100% product.
Tuscany® Silk 90% Silk 10% Poly	Acrylic resin bonded Lightly needlepunched	96"	4"	Natural	1/8	3	14 ¾ x 15 Do not prewash	Hand or machine Great for clothing Batting may be split for a very thin batt Pre test with dark fabrics
Matilda's Own Matilda's Own Wool 60% Australian Wool 40% Polyester	Needlepunched with polyester scrim	96" 120"	10"	Natural & Charcoal	1/4	4.43	15 sq	Prewashed and preshrunk Imported Pretest on dark fabrics S
Mountain Mist Heritage Collection™ Touch of Silk 95% Polyester 5% Silk	Carded Resin bonded	PO	5"	White	¼	2.4	NT	Hand or machine Neps present
Heritage Collection™ Touch of Wool 95% Polyester 5% Wool	Carded Resin bonded	PO	5"	White	¼	2.4	NT	Hand or machine Neps pr
Heritage Collection™ Touch of Cashmere 95% Polyester 5% Cashmere	Carded Resin bonded	PO	5"	White	¼	2.4	NT	Hand or machine
Cotton Blossoms™ Touch of Natural Luxury Cotton & Wool Blend 95% Bleached blended cotton felt 5% Wool	Carded Resin bonded	PO	3"	White	¼	2.4	14 ½ x 14	Nice drapeability Soft No migration, however minimal neps of fibers came through during the quilting process. Prewashing not recommended (it began to fall apart)

⁶ See Batting Terminology

⁷ Stitch space – this is the manufacturer's recommendations not the author's

⁸ Weight per square yard provided by manufacturers

⁹ Presoaked in warm water and dried in a warm dryer

¹⁰ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

- Samples provided from supplier were 10 ¼" squares prior to washing for preshrinkage test.

Retailer Batting Name	Finish¹¹	Roll Width	Stitch Space¹²	Color	Loft (inches)	Oz. Wt Per Sq Yd¹³	Presoak Shrinkage¹⁴	Recommended Quilting/Comments¹⁵
Cotton Blossoms™ Touch of Natural Luxury Cotton & Silk Blend 95% Bleached Cotton 5% Silk	Carded Resin bonded	PO	3"	White	1/4	2.4	14 1/2 x 14 3/4	Nice drapeability Soft No migration, however minimal neps of fibers came through during the quilting process.
Mt. Mist EcoCraft™ EcoFriendly Batting 100% PLA (Poly Lactic Acid)	Carded Resin Bonded	PO	4"	White	1/4	2.4	Used 5" square 4 3/4 x 5"	Do not Prewash Very thin Fiber not heat tolerant – however we did heat tests on quilted sample and had positive results. Not certain as to results over repeated drying. M
EcoCraft™ EcoFriendly Batting 50% PLA 50% Cotton	Carded Resin Bonded Lightly needlepunched	96" 120"	4"	White	1/8	2.4	14 3/4 x 15	Do not Prewash Very thin Fiber not heat tolerant – however we did heat tests on quilted sample and had positive results. M
EcoCraft™ EcoFriendly Batting 50% Soy 50% Cotton	Needlepunched with polypropylene scrim	96"	6"	Natural	1/8	4	14 1/2" sq.	Hand or machine Very soft and drapeable S
Quilters Dream Dream Wool 100% Wool	Carded, Cross- lapped, Thermal bonded	93" 122"	8"	Cream	3/8	3.5	15 sq	Hand or machine Nice Lightweight Washable No shrinkage Pretest on dark fabric S
Dream Green 100% recycled green plastic	Carded, crosslapped, needlepunched	60" 93" 122"	12 "	Light Green	1/16 Select loft only	3	N/A	Hand or machine Nice, drapeable polyester batting S
Dream Orient Bamboo/Silk/ Cotton/ Botanical Tencel Blend	Needlepunched No scrim, resin or bonding	60" 93" 122"	8"	Cream	3/32	4	NT	This batting is so new we have not tested NT
Winline Winline 50/50 Bamboo 50% organic cotton 50% bamboo	Needlepunched with polypropylene scrim	96	8	Natural	3/32	4-4.2	14 5/8"sq.	Hand or machine Antibacterial Prewash recommended S
Winline Soy 50% organic cotton 50% Soy	Needlepunched with polypropylene scrim	96	10	Natural	1/8	4-4.2	14 1/2"sq.	Hand or machine Hand Prewash dry flat prior to quilting. Washable after quilting. Very soft & drapeable. M

¹¹ See Batting Terminology

¹² Stitch space – this is the manufacturer's recommendations not the author's

¹³ Weight per square yard provided by manufacturers

¹⁴ Presoaked in warm water and dried in a warm dryer

¹⁵ These comments were made by the manufacturer, Debbi Trevino or Marcia Stevens

* Samples provided from supplier were 10 1/4" squares prior to washing for preshrinkage test.