

FABRICS

For CGNA

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All fabrics are made from fibers, whether they are animal, vegetable, or synthetic. Wool and silk are animal fibers. Cotton and linen are from plants. Man-made fibres are chemically produced.

COTTON: Made from the seedpod of the cotton plant. A plant that produces *long fibres* makes the best fabric. Egyptian cotton (actually grown in Egypt) has long been considered the best quality cotton. Supima cotton is grown in USA and is also good quality cotton.

LINEN: Flax is the plant, which is used to produce Linen. This fibre is very ancient it has been found in the tombs of pharaohs. Linens' most noticeable feature is the unevenness of the fibre--it can vary dramatically within a short space from thin to very thick. Where two threads are joined in the weaving process forms the "*slub*" There are two distinct types of fibers from Linen "*line*" and "*Tow*".

- **Line** is the longest fibre after the flax is retted (soaked to loosen the fiber from the woody tissue) broken, scrunched and hackled. These are the strongest and most lustrous fibres.
- **Tow** is coarse, short and less shiny. It is also more absorbent than Line and tea towels are made from tow.

WOOL is an animal fibre that is composed of short fibres that are spun to make a *filament yarn*. After the fleece has been washed, carded and spun into yarn it can then be woven into fabric or spun into yarn or pressed into felt. Wool quality is dependant on the type of sheep from which the fleece is sheared. Merino sheep produce the best quality wool. As the percentage of this bloodline drops in other breeds so does the quality of the wool. Angora is produced from the Angora rabbit and goats.

SILK is an ancient fibre. At one time, Chinese nobility were the only people allowed to wear this fibre. Marco Polo is credited with bringing silk to Europe. Later some enterprising Italians smuggled silk worms out of China and Italy became a leading manufacturer of silk. Silk is the strongest fibre known to man it has a strength 1.4 times stronger than steel of the same diameter. In fact, archeologists have found silk in 3000 yr old tombs in China still in tact. The silkworm spins a cocoon of about 3000 to 4000 meters of silk fibre, of which about 1000 meters can be wound in a single thread.

SYNTHETIC FIBERS: are manufactured very long. These artificial fibers are *filament-yarns*. They can be used alone or blended with natural fibres.

Ground Fabrics

It is always advised that you buy high quality ground fabric. For the purposes of embroidery there are two categories:

- **Evenweave**--Fabric woven so that there are the same number of warps as wefts per inch. This is used primarily for the various types of counted thread embroideries. The number of threads per inch/cm determines the count
- **Fabric woven**—fabric woven without concern for the same number of threads in the warp and weft. As long as a needle can be passed through the fabric, you can use it for a ground fabric. The choice will be determined by the technique and project. Knitted or pressed fabric can also be used. Embroideries done on this type of ground are usually surface work

Natural Fibres--Evenweaves

<p>Aida</p> <p>Invented in 1907 it is recognized by its clearly seen squares. Aida is 100% cotton and comes in counts 6 to 18 count. However 11,14,16 and 18 are the most common sizes. This is most common ground for cross-stitch. A number of sizes and colours are available in 43 inches /110cm wide and a limited number of colours in 59in/130cm widths.</p> <p>There are also several specialty Aida cloth such as Pearl, Damask, Metallic, Rustico, and Linen all in various sizes and colours.</p>	
<p>Hardanger</p> <p>100% cotton woven with pairs of threads. The weave gives a squared appearance. It is a very similar weave to Aida cloth with distinct holes, making it easy to count and work on. This fabric comes in 22 count and a variety of colours.</p> <p>It is available 43in/110cm, 55 in/140, cm. and in limited colours 67in/170cm wide. The wider width is good for tablecloths etc.</p>	

<p>Jubilee</p> <p>100 % cotton in 28 count is also a favorite evenweave in this category. It is 55 in/140cm wide and it too comes in a variety of colours.</p>	
<p>Linen</p> <p>No other fabric is as easily identified by touch. It has cool smooth hand and a fine irregular structure of flax fibre. The most common counts are 18 to 36 counts. Linen counts are often referred to by name for example the Zweigart linens are:</p> <ul style="list-style-type: none"> Cork Linen- 18 ct Dublin Linen- 25 ct Cashel Linen- 28 ct Belfast Linen -32 t Edinburgh Linen -36 ct <p>Linens are 55-inches/140 cm wide.</p> <p>It is advised that when working with linen you work over 2 threads as linen is woven with a single fibre. (stitching over 1 strand allows the thread to slip)</p>	

Blended Fibres--Evenweave

<p>Quaker Cloth</p> <p>55% linen 45% cotton. 28 count 55in/140 cm wide.</p> <p>Is available in a variety of colours. The fabric is ideal if you want the look of linen with the hand of cotton</p>	
<p>Lugana</p> <p>Is a blend of 52% cotton and 48% rayon is available in several counts each with its own name</p> <ul style="list-style-type: none"> 20ct Bellana 25ct Lugana 28ct Brittany 32ct Murano <p>The most common width is 55 in/140 cm however it can be ordered in limited colours in 67in/170 cm width</p> <p>Lugana has a firm hand and is ideal for cross-stitch, Hardanger, Blackwork etc. Lugana has a smooth look when stitched.</p>	

A few other types of evenweave

Janina (22 count) plain weave fabric made of 100% cotton. It is suitable for any cross-stitch or hardanger project.

Linda (27 count) This 100% cotton evenweave fabric is perfect for clothing because of its close weave and draping effect. A lightweight fabric with an easy care finish it is excellent for table linens and samplers.

Vienna (22 count) Vienna is a 100% cotton, plain weave fabric woven with a linen look. Ideal for clothing, table linens, curtains, pillows and other decor items.

Jessica (14 count) made of 100% cotton, this fabric can be used to create numerous home decor items.

Ariosa (20 count) A natural, knobby linen texture but with the ease of a 60% Rayon & 40% Cotton blend with a wide color range available. It is ideal for napkins, placemats, pillows, pictures and clothing

Strathaven Linen (32/33) count linen that can be used for counted work REMEMBER there is 1 extra thread per inch in one direction

Patterned fabrics There is variety of these fabrics some are marked off in square these are ideal for Afghans, other have inserts of Aida cloth these are used to embroider tablecloths

Stitch bands. A stitch band is a narrow ground with a finished edge suitable for bookmarks etc. stitch band come in various fabrics, counts and widths

Canvas is a stiff open weave ground fabric in a variety of counts from rug canvas at 5 threads per inch up to 24 per inch for congress cloth. Silk gauze(also a canvas) can be purchased in sizes ranging from 18 threads to the inch to 128 threads the inch used for petite point.

<p>Mono Canvas</p> <p>Comes in the widest variety of colors (especially on 18 mesh) and is plain woven (one weft thread going over and under one warp thread).</p> <p>This canvas has the most possibilities for manipulation and open canvaswork.</p> <p>It is generally used for hand-painted canvases and contemporary canvas work. It is available in 36inches/90 cm and 27inches/68cm</p>	
<p>Interlock Canvas</p> <p>Is made more stable than the others twisting two thin threads around each other for the lengthwise thread and "locking" them into a single crosswise thread.</p> <p>Interlock canvas is generally used for printed canvases.</p> <p>40inches/100cm width</p>	

Some Other types of Canvas

Silk gauze is a form of interlock canvas, which is sold either in small frames or by the square inch for petit-point work. Silk gauze most often comes in 32, 40 or 48 count, although some 18 count is available. 64 to 128 counts are used for miniature work.

Penelope Canvas has two threads closely grouped together in both warp and weft. Because these threads can be split apart, Penelope sizes are often expressed with two numbers, such as 10/20 it is 36 inches/90cm wide

Congress Cloth –100% cotton It is a mono canvas it is available in 24 count in a variety of colours. It is 50 inch wide

Waste Canvas is a water-soluble canvas used to stitch on woven and knit material it is available in counts of 5 to 14.

Calculating fabric size for counted thread work

To calculate design size	To calculate fabric size
<p>Formula</p> <p>number of stitches ÷ fabric count</p> <p>Example:</p> <p>stitch count 140 x 233 sts</p> <p>over 1 thread 14 ct fabric</p> $140 \div 14 = 10$ $233 \div 14 = 16.64$ <p>DESIGN SIZE 10 x 16 2/3 inches</p> <p>over 2 threads 28 ct fabric</p> $140 \div (28 \div 2) = 10$ $233 \div (28 \div 2) = 16.64$ <p>DESIGN SIZE 10 x 16 2/3 inches</p>	<p>Add 6 inches to both dimensions</p> $10 + 6 = 16$ $16.2/3 + 6 = 22 \frac{2}{3}$ <p>FABRIC SIZE 16 x 23 inches</p> <p>Note: When changing from decimals to fractions always round up</p>

POINTS TO PONDER

Counted thread embroidery on counts over 20 are usually done over 2 threads.

Cross stitch/Needlepoint on counts of 20 or higher over 1 thread is called petite cross/needlepoint

Stitching over two threads the length of the stitches is double the fabric count

I.E. 28 ct over 2 threads will result in a stitch length equal to over 1 thread on 14 ct.

The higher the fabric counts the smaller the stitch length

Fabric that is woven, knit, or pressed.

As long as a needle can be passed through the fabric, you can use it for a ground fabric. The choice will be determined by the technique and project. There are some finely woven fabrics available for fine white work.

Zweigart

- Kingston Linen -- is 55 count and is 71 in/180cm wide
- Linen Twill-- 100% cotton special order . Ideal for crewel work
- Normandy, White (55% cotton/45% linen - 71in wide)

Access Commodities

- Ecclesiastical Linen --thread count 72/80 63 inches wide ideal for Richelieu Church Linen, Ribbon embroidery, Borderie Anglaise and church lines
- Plain Weave Linen Ground--thread count 38/42 ideal for heavy threads such pearl #3
- Shadow Work Linen-- is garment quality ideal for collars christening gowns and fine table linens
- Linen Cambric --45 inches wide. Soft with a slight luster and wrinkles easily

Other woven materials to consider are:

Silk there are many of types of silk two examples are:

- Douppioni (also spelled Duponi) is a plain-weave fabric with slubbed ribs. It has a stiff, taffeta-like hand and is usually dyed in bright colors. Serge or over cast the raw edges first to prevent raveling. Washing will make the fabric lose some of its stiffness, which may be your preference, and the color will soften as the excess dye is washed away.
- Noil is made from the short fibers left after combing and carding so it doesn't shine like many other silk fabrics. Noil looks similar to cotton, but has the soft feel of silk against the skin. It can be machine washed on gentle and dried on low, but this will cause a faded, "weathered" look.

Ultrasuede

- This is the trade name for a synthetic microfibre invented in 1970. It was the world's first ultra-microfibre Fabric content is 100%polyester. Ultrasuede feels like natural suede.

Cotton Broadcloth

- 100 percent cotton or a mix of cotton and synthic fibres usually 44 inches wide. It is most commaly used by Quilters
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