DENSITY OF FABRIC YARN IN MULTI-LAYER FABRICS

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Abstract. In the given work formation of fabrics on a weaving loom influences of linear durability of filling yarn on refueling tension and a number of other parameters is investigated.

Keywords: Tissue structure, raw materials, Multi-layer tissue, tissue thickness

The production of suitable gas products for the needs of the population is one of the tasks of special importance. In this case, increasing the assortment of clothing and costume products is considered one of the main tasks of textile industry employees.

The steps for preparing multilayer tissue are not different from the steps for preparing simple tissue, but the structure is different. This difference is clearly seen in the density of the fabric, its thickness, the mutual location of the threads, and the weaving.

A fabric is made from two or more warp and weft yarn systems, interwoven in a given order. In the process of fabric formation, each warp yarn is either under or over the weft yarn. The weft yarns are also arranged in a similar manner.

The structure of fabrics is the arrangement of the warp and weft yarns and the specific relationship between them.

The main indicators that determine the fabric structure are: raw material composition of threads, their linear density, diameters, density in the fabric on the body and warp and density compatibility coefficient, thread wrapping in the fabric and other indicators.

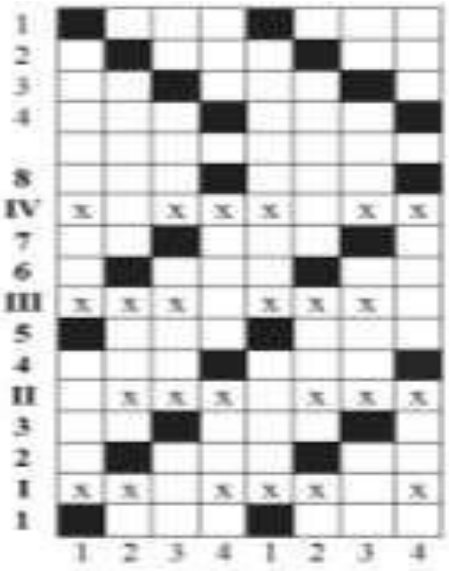
Multi-layered fabrics can usually be one and a half or two layers. In some cases, the number of layers can be made into three, four, or five layers, depending on the function of the fabric.To create a weave in one and a half ply fabrics, there must be two warp systems and one weft system (additional warp system) or two warp systems and one weft system (additional weft system).

In the first case, the warp yarn systems are arranged one above the other, with the weft yarns interwoven with them to strengthen the yarns. In this case, the weft yarns are under high tension and the insertion cost is also high.

In the second case, the warp yarn systems are placed one above the other, and the warp system is woven with them, which means that the warp yarns are under great tension, and the insertion cost is also higher than normal.

Textiles are usually measured by the parameters of weaving and quality, i.e. width of the fabric, density on the body and warp, density on the surface, resistance to breaking force and elongation at break, type of shearing, linear density of yarns on the body and warp, thickness of the fabric, penetration indicators.

It can be seen that the research of layered tissue parameters, especially the density of the tissue by threads, is one of the urgent issues.



The researched tissue is a costume, and differs from the previous ones in some of its properties. An example of this is its hygroscopicity and non-creasing properties. Cotton fiber yarn was used as raw material for tanda yarn. Other types of yarn can be used for the yarn.

The fabric is included in the series of one-and-a-half-layer weaves, and the serrated weave S-1/3 is obtained. The upper layer of the produced gauze has an inclined horizontal path, which gives a unique appearance to the appearance of the fabric.

The arrangement of warp threads in any shape in the fabric is carried out by the warp mechanism of the loom, which moves in coordination with other mechanisms.

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Weaving period: The weft placement depends on whether it is early or late, andthis is affected by the thickness of the weft thread passed through the loom. The thicker the warp thread, the earlier the tension between the warp threads is released, and the longer the weft adjuster will wrap the fabric. The thinner the yarn, the shorter

the weaving time. As a result, the density of the fabric varies along the length of the fabric.

If the warp threads are thick, the machine will work more in one cycle, on the contrary, if the warp threads are thin, less fabric will be woven. When the rope threads stop passing through the loom, the weaving stops. In this case, the rope threads are different in some places. The average density of the fabric on the warp depends on the value of the tension of the warp threads during the weaving and winding. If the difference in the tension of the threads on the body increases, the density of the fabric will also increase along the warp.

As a result of the conducted research, the effect of density on the structure of the fabric in multilayer fabrics was examined. When using cotton fiber yarns of medium density for the warp yarns, the fabric parameters were close to the standard ones, and its quality also met the requirements.

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