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PRODUCTION TECHNOLOGY OF FABRICS WITH VOLUMINOUS SURFACE EFFECT

ТЕХНОЛОГИЯ ПРОИЗВОДСТВА ТКАНЕЙ С ОБЪЕМНЫМ ЭФФЕКТОМ ПОВЕРХНОСТИ

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ABSTRACT

LINEN YARN, COTTON LINEN FIBER, BULK, WEAVING, FINISHING

The article deals with a new fabric structure for decorative jacquard fabric in order to increase the volume of the fabric and reduce the surface density.

АННОТАЦИЯ

ЛЬНЯНАЯ ПРЯЖА, ХЛОПКОЛЬНЯНОЕ ВОЛОКНО, ОБЪЕМНОСТЬ, ТКАЧЕСТВО, ОТДЕЛКА

В статье рассматривается новая структура ткани для декоративной жаккардовой ткани с целью повышения объемности ткани и уменьшения поверхностной плотности.

An important task today is to develop new means of creative design of fabrics by weaving and finishing methods. Research aimed at developing methods for obtaining new weaves that create visual effects of different volumes on the fabric becomes relevant [1,2].

A new structure of linen two-layer decorative fabric for the production of plaids is studied, which allows to create a double-sided pattern and increased volume of the surface. Traditionally, for the production of plaid fabrics with volumetric effects, a two-layer structure is used, in which weft threads are laid in a ratio of 1:1 and differ in appearance, linear density and properties, while one of the wefts has a high shrinkage ability. In the developed fabric, weft threads of the upper and lower layers are not highly shrinkable, and the pattern-forming weft has a high shrinkage ability during the final finishing of the fabric. This structure allows to get more volume and reduce the surface density at the ratio of the weft of the upper layer (1,2) to the padding (pattern-forming P1) to the weft of the lower layer (I, II) 2:1:2. Weaves are designed in such a way that with the help of weaving effects the variety of texture of the pattern is transmitted. For this purpose in the top layer of fabric interlacing is used: twill 2/2, 3/1 with various sign of shift, satin, matting, reps, linen interlacing. The lower layer uses a plain weave.

The volumetric texture of the surface of the two-layer fabric of the described structure depends on the shrinkage of the fabric during wet processing, and the shrinkage value is associated with the width of the treated fabric. Using facilities of Orsha Linen Mill production of experimental samples of decorative fabrics for the new structure was done, as the warp and the weft of the upper and lower layers used linen yarn wet spun linear density of 56 tex, as weft, two yarns of cottonized flax fiber: linear density of 50 and 110 tex. Prototypes were tested in the laboratory of the enterprise.

Complex weaves of a new kind are designed, which can be combined in one fabric structure. As a result, when used in one of the layers of threads with highly shrinkable properties, the combination of hollow and connected areas in one fabric leads to the volume of the fragments of the pattern.

REFERENCE

1. Лейтес, Л.Н. (1947), Москва, Гизлегпром, Методы художественного оформления тканей, Москва, 244 с.
2. Козлов, В.Н. (1981), Москва, Легкая и пищевая промышленность, Основы художественного оформления текстильных изделий: Учебник для вузов, Москва, 264 с.
3. Акиндинова, Н. С., Казарновская, Г. В (2012), Параметры строения гобеленовых тканей новых структур, Вестник ВГТУ, 2012, №22, С. 7-12.