

## DEFINING THE NEW ADDRESS GAS STRUCTURE THEORETICAL ANALYSIS OF FACTORS

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**Annotation.** In this article, a theoretical analysis of the supporting surface and the structural structure of the interlacing phase of adras tissues is carried out. In recent years, there has been a decrease in the color palette used in the patterns of adras and chonatlas fabrics. This shortcoming was eliminated by changing the parameters of the weave structure.

**Keywords:** Fabric decoration, xanatlas, gauze, silk, decoration, silk metanite, Tissue fiber content: tar, cotton

Most of the researched fabrics belong to the group of adras gazlams and abral gazlams, which are characterized by the fact that they are made from different fibers of tanda and argoq yarns, that is, the tanda is made of silk and the argoq is made of cotton yarn. For fabric decoration, a pattern is made in abband way, similar to the khonatlas group's patterns [1]. The adras and khonatlas produced in the following years are distinguished by the lack of colors in the pattern.

The type of cloudy gauzes made with silk and cotton thread is also found in bekasam group gauzes. The difference between Bekasam and Adras yarn is that they are woven from colored yarns, and the sharp difference in the diameters of the warp and weft yarns creates a longitudinal striped pattern characteristic of rep weaving, and then calendering the weft fabric with high linear density gives the fabric a shiny shine [2,3]. The purpose of using a high linear density warp yarn in Adras fabric is to ensure that more warp threads are exposed on the surface of the fabric, that is a fabric with a warp surface is formed.

Samples of existing adras (in three options) and new composition adras fabric (option 4) were selected for the research and structure and shear parameters were analyzed.

The analysis of this process can be based on the theory of Professor Novikov [4] as follows.

Table 1

№	Indicators	Unit of measure	Available addresses			Address with new content
			1 option	2 option	3 option	
1.	Fabric fiber content: body lean	-	silk methanite+ cotton	Cotton cotton	silk cotton	Tanda yu - silk Tanda p is cotton vodka- metanite+cotton
2.	Linear density of threads body	tex	17	48	9	$T_{T_{10}} = 7$ $T_{T_{11}} = 50$

	lean		54	50	55	T <sub>A</sub> = 45
3.	Thread diameter, $d_T = 0,0316 \cdot \sqrt{T}$ Body lean	MM	$d_T = 0,13$ $d_A = 0,23$	$d_T = 0,22$ $d_A = 0,22$	$d_T = 0,09$ $d_A = 0,23$	$d_{T\text{lo}} = 0,08$ $d_{T\text{II}} = 0,22$ $d_A = 0,21$

We analyze the case where  $K_d = \frac{d_T}{d_A} > 1$  is defined by Kd as the ratio of the diameter of the warp and weft threads in the fabric. Figures 1a, 1b show the structural phase orders of the tissue for cases  $K_d = \frac{d_T}{d_A} > 1$ ,  $d_T = 2d_A$ .

K <sub>d</sub> = 0,56	K <sub>d</sub> = 0,98	K <sub>d</sub> = 0,404	K <sub>dlo</sub> = 0,396 K <sub>dII</sub> = 1,052
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In the diagram, the 7th structure in the phase order, the distance between the tanda threads is equal to their diameter, because the distance between the attempts transferred to two adjacent tanda threads has a min value of bT. As a result, the technological density of the fabric has a maximum value between the 7th and 8th structural phases, which can be determined as follows:  $P_T = 100 : \ell_T = 100 : d_T$

P <sub>T</sub> = 769,2 P <sub>A</sub> = 430,7	P <sub>T</sub> = 456,6 P <sub>A</sub> = 448,4	P <sub>T</sub> = 1054,8 P <sub>A</sub> = 426,8	P <sub>Tlo</sub> = 1190,5 P <sub>TII</sub> = 448,43 P <sub>A</sub> = 471,7
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The bending of the warp threads in the fabric can be determined from the formula in terms of wave height.  $h_T = \sqrt{(d_T + d_A)^2 - d_T^2} = 2d_T \sqrt{1 - \frac{K_d^2}{(K_d + 1)^2}}$

h <sub>T</sub> = 0,338 h <sub>A</sub> = 0,314	h <sub>T</sub> = 0,383 h <sub>A</sub> = 0,383	h <sub>T</sub> = 0,315 h <sub>A</sub> = 0,285	h <sub>Tlo</sub> = 0,283 h <sub>TII</sub> = 0,373 h <sub>A</sub> = 0,177
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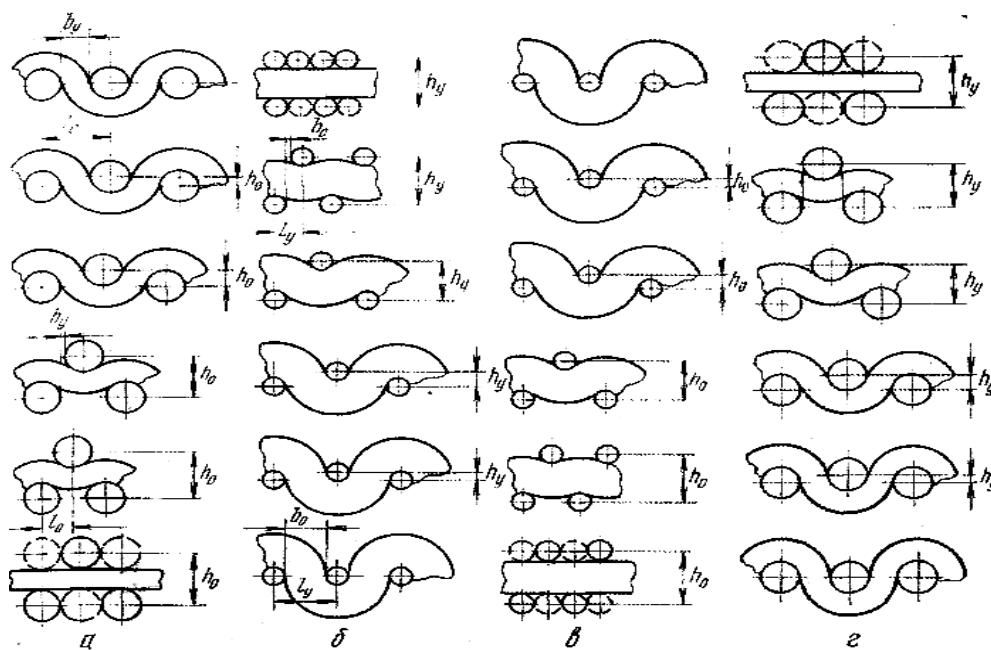


Figure 1. Scheme of the structure of experimental samples.

Here,  $d_T$  is the diameter of the warp thread in the fabric, and it and the coefficient of diameters can be determined as follows:

$$d_T = \frac{2K_d \cdot d_{\bar{y}pt}}{K_d + 1} \quad K_d = \frac{d_T}{d_A} \quad d_{\bar{y}pt} = \frac{d_T + d_A}{2}$$

$d_{\bar{y}pt} = 0,1811$	$d_{\bar{y}pt} = 0,221$	$d_{\bar{y}pt} = 0,16455$	$d_{\bar{y}pt} = 0,1023$
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7. Since the fabric structure is  $\ell_T < d_T$  in the phase order, bending of the warp thread in the horizontal direction has a great value in fabric formation. Similarly, the bounded minimum geometrical density of tissue along a similar beam is achieved when  $\ell_A = d_A$ . This corresponds to the 2nd phase order of the fabric (see Fig. 1b) in this case there is no gap in the arrangement of the warp threads in the fabric, that is, it has a small value. In it, the maximum density of the fabric is determined by the following parameters. from which  $\ell_A$  is determined:

$$P_A = 100 : \ell_A = 100 : d_A$$

$\ell_A = 0,232$	$\ell_A = 0,223$	$\ell_A = 0,234$	$\ell_A = 0,212$
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(4) in this case, the bending wave height of the rope rope is determined from the following formula:

$$H_A = \sqrt{(d_T + d_A)^2 - d_A^2} = 2d_{\bar{y}p} \sqrt{1 - \frac{1}{(K_d + 1)^2}} ; \quad d_A = \frac{2d_{\bar{y}p}}{(K_d + 1)}$$

Расм. а, б-расмларда 1-фаза тартибида иккита қүшни арқоқ иплари 9- and in the phase order, the threads of two adjacent tandas overlap each other. This transition is not possible without reducing the dimensions when changing the coating of the threads, so phases 1 and 9 cannot be produced. For the production of 2-phase yarn, the tension of the warp threads should be equal to the maximum, and the minimum tension in the yarn, i.e.:  $\frac{F_T}{F_A} > 1$ . To produce an 8-phase order weave, the tension of the warp thread should

be at its maximum value and should be located in a straight line to the weave. When the diameters of warp and weft threads are equal, that is, if  $K_d=1$ , the maximum density of the fabric limited to the warp is determined as follows.

$$h_T = \sqrt{4d_{\text{wp}}^2 - d_{\text{wp}}^2} = d_{\text{wp}}\sqrt{3} = 1,732d_{\text{wp}}$$

Here:  $K_hT=1,752$ , which means that the 7-8 phases of this tissue structure are in the package (closer to phase 7) Because:  $F = 4 \cdot 1,732 + 1 = 7,928$ .

If the distance between the weft yarns is  $L_A=d_a=d_{\text{wp}}$ , then the density of the fabric is limited by the maximum weft  $P_A = \frac{100}{d_{\text{wp}}}$ . The bending of the weft thread is the height of the wave

$h_A\sqrt{4d_{\text{wp}}^2 - d_{\text{wp}}^2} = d_{\text{wp}}\sqrt{3} = 1,732$ . Here  $K_{ha}=1,732$ , that is, between the 2-3 phases according to the structure of the fabric, i.e. (closer to the 2nd phase)  $F=9-4 \cdot 1,732 = 2,072$ . The diameter of the body thread from the weft thread thin fabric phase orders  $d_A=0.5d_a$  i.e.  $K_d = \frac{d_T}{d_A} = 0.5$

2.1-v, g pictures show the order of the fabric phase structure when the diameter of the thread is smaller than that of the warp thread. Then  $d_T = 0.5d_A$  means

$$K_d = \frac{d_T}{d_A} = 0.5$$

The density of these tissues on the body has a max value, which is large compared to  $K_d=2$ , and the density on the back is small compared to  $d_T > d_A$ . Therefore, to produce tissue of high density,  $\ell_T=d_T$ , should be. This is between the 8th and 9th order phases of the tissue structure (see Fig. 1v), and the max density along the beam is produced by the 2nd and 3rd order phases of the tissue structure in the tissue with  $\ell_A=d_A$ . From the comparative analysis of  $K_d = 2$  with  $K_d = 2$  (Fig. 1a) and  $K_d = 0.5$  (Fig. 1v) in order to produce a fabric with a large density on the warp,  $d_T < d_A$  should be, in this case, the curvature of the warp yarns is large, and the warp is located in a straight line. It is clear from the analysis of the location of the warp threads in the case of  $K_d=2$  (Fig. 1b) and  $K_d=0.5$  (Fig. 1g), that in order to achieve a high density of the warp in fabric production,  $K_d=2$ , i.e.  $d_T>d_A$ . From the above analysis, the ratio of the diameters of the warp and weft yarns provides a certain value in order to achieve which yarns are more exposed to the surface of the fabric.

Summary: Therefore, as a result of the analysis of the structure and shear parameters of the samples selected from the existing adras and the new composition adras fabric, it was found that the greater number of warp or warp threads on the surface of the fabric depends on their diameter.

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