

RESEARCH OF THE PRODUCTION OF COMPLEX WOMEN'S COATS ON THE BASIS OF ANALYSIS OF THE PROPERTIES OF MODERN FABRICS

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Annotation: This article analyzes the fabrics used for modern women's coats, the physical-mechanical and operational properties of the materials, For the results of these analyzes, new assortments of 5000 types of modern and intricately shaped coats were studied.

Keywords: intricately shaped coat, heat retention properties, durability, elasticity, porosity, softness, gabardine, diagonal, crepe, bugle, cashmere, tweed, half coat, overcoat, trench coat, olster.

The range of women's coats includes winter, spring, seasonal coats and half coats. The coats come in a variety of models with a straight, semi-tight and trapezoidal silhouette. Coats are multi-layered garments, the top of which consists of a basic fabric, lining, cushioning (flizilin, dublin), as well as heating coats for winter coats.





The appearance of women's coats is a complex, multi-layered product that is scientifically based on the selected fabric, consumer and operational requirements.





Research on the range of women's coats has been conducted by scientists from the Moscow University of Design and Technology, St. Petersburg University of Technology and Design, Rostov-on-Don Institute of Light Industry Technology. The work of many scientists Ye.B. Koblyakova, F.U. Nigmatova, I.I. In the face of fierce competition in the product market, designing clothing sets that fit the consumer's wardrobe and on this basis to meet the consumer's demand for quality products is an urgent problem.

The problem of studying consumer needs is solved through marketing research. The concept of marketing in enterprises is slowly taking shape, including the study of consumer demand for women's garments. In particular, the formation of the women's coat market, in turn, requires designers and manufacturers to study modern methods of clothing design and introduce them into production.

In the garment industry, depending on the method of processing and operational requirements, coat fabrics meet the requirements: surface density, durability, tear strength, air permeability, impermeability, as well as good heat retention color, independence, water and light resistance. The development of textile-innovative technologies, the introduction of new types of fabrics in garments, the production of melange materials (without flowers and monochromatic).

Characteristics of Women's Coat Assortment
Table 1

	<p>Fur coat models</p> <p>Fur coats always make outerwear look very delicate and luxurious. Depending on the preferences of women, it can be natural or artificial. Due to the simple unique thermal properties of the natural miracle, the products supplied with it are very warm, so they provide maximum comfort even in cold weather.</p>
	<p>Knitted coat models</p> <p>Knitted outerwear always feels maximum comfort and attractiveness. Modern types of models made of knitted or sewing threads of different densities are very diverse:</p>
	<p>Leather coat models</p> <p>Genuine leather tops are incredibly practical and durable. With all the high cost of products made from these materials, they have not lost their importance for many years. Women and girls of all ages are the outerwear that can be applied.</p>
	<p>Classic coat patterns</p> <p>The most stylish and modern models of classic style dress. In most cases, such products are chosen by business women for work and business meetings, but many women prefer to wear such things in everyday life. Classic outerwear may look the same, but in fact it is not, because there are several types:</p>

	<p>Modal coat models</p> <p>Every woman differs in body size, height, age, personal parameters and many other parameters. That's why fashion women are like completely different things that can be bright and gorgeous, compact and limited. Every year, stylists and designers develop the most diverse models of women's coats, among which every young woman can easily choose the most comfortable and favorite version.</p>
	<p>Summer coat samples</p> <p>Modern coat patterns can be so bright that they are the perfect alternative to summer dresses, windbreakers and elegant knitted cardigans. Such products have not yet gained enough popularity in the fair sex, but stylists and designers every year develop bright options that appeal to many fashion enthusiasts.</p>
	<p>Seasonal coat models</p> <p>Women's coats are usually required during the season when the weather is always changing and often when it is raining. Classic patterns of women's autumn coats, represented by energetic and soft colors, approximately knee-length, the minimum number of silhouettes and decorative elements are always in greatest demand.</p>
	<p>Winter coat models</p> <p>In winter, a beautiful and elegant dress is an alternative to a precious fur coat made of natural fur. The coat must have warm storage properties.</p>

The most important feature of coat fabrics is heat retention. In addition, fabrics are required to have shape retention, abrasion resistance, elasticity, and resistance to penetration and elongation.

The group of coats is large, and includes not only thick and heavy fabrics, but also thinner, more suitable for summer clothes, knitted fabrics. Coat fabrics are first grouped according to the composition of the raw material. The most common of these fabrics are wool and yarn.

Wool coat fabrics are divided into several groups according to their texture, fiber content and other properties. These include groups of camouflage, thin woolen fabrics, drapes, thick woolen fabrics and




woolen fabrics. Their common properties are density, heat retention, and in addition to wool, they also contain synthetic fibers.




Clothing is in direct contact with the human body, the quality of which is taken into account in the design of the product, is ensured in the production process and is reflected in the period of operation. Therefore, the composition of the garment, the type of raw material used, the physical properties of the fabric are important.

Fabrics used for winter clothing should have high heat retention properties. A study was conducted to produce intricately shaped women's coats, and coat fabrics for customers in shopping malls in Namangan region were selected as the object (Table

1).Assortment of fabrics

Table 2

GAZLAM A NAME	APPEARANCE	DESCRIPTION
Bukle		The mixture is made of pure wool, acrylic or mohair fiber. its surface density - 390- 460 g / m ² , width 152 cm, composition - a mixture (50% wool, 20% moxer, 15% kapron, 15% nitron) is produced.
Krep		Coat semi-wool fabric mixed with kapron, nitron or viscose fiber. Its good features are elongation and drapery. Harvest - small rice or cloth (net). The main feature of the crepe is the roughness and low wrinkling of the surface due to the large number of twists on the body and back.
Diagonal		Densely woven elastic floral drapery elastic fabric. The texture of the surface of the fabric is rough, that is, two small lines running at an angle. The diagonal is woven from pure wool or

		mixed fiber. [2]
Tvid		The range of tweed fabrics includes fabrics of different thickness and composition. It can be pure wool or a mixture (wool, acrylic and nitron, viscose), or entirely synthetic fiber.
Kashemir		The most expensive coat fabric is made of very fine woolen yarn. One coat requires 1.5 kg of wool and one goat can produce up to 200 grams of wool. Cashmere wool is extremely soft and light due to the thinness of the fiber (almost 3 times thinner than human hair fiber).
Drap		Traditional coat fabric is widely used in the production of women's and men's coats. The drapery is soft but densely woven fabric, which provides good protection from wind and cold. Drap classic Paltobop fabric, its modern varieties are made of various synthetic fibers and materials, which makes the fabric softer and more elastic.

In the development of a coat model that provides heat balance in the body in temperate climates, the correct choice of materials is very important. The role of the base fabric of the coat is high in performing the function of thermal protection. Moisture permeability is very important for creating a microclimate in clothing, and the accumulation of moisture in clothing increases its thermal conductivity and leads to heat loss from the body. At the same time, the layers of moisture permeability (95-100 g / m

for pure wool fabrics), hygroscopicity (vapor permeability - 40-45 g / m) lead to rapid absorption of atmospheric moisture and a decrease in the thermal protection properties of clothing possible. [3]

Surface density is an important parameter that directly affects the choice of fabric for sewing. The denser the fabric, the thicker and warmer it will be. The surface density of the selected coat fabrics was analyzed in the following histogram (Figure 1).

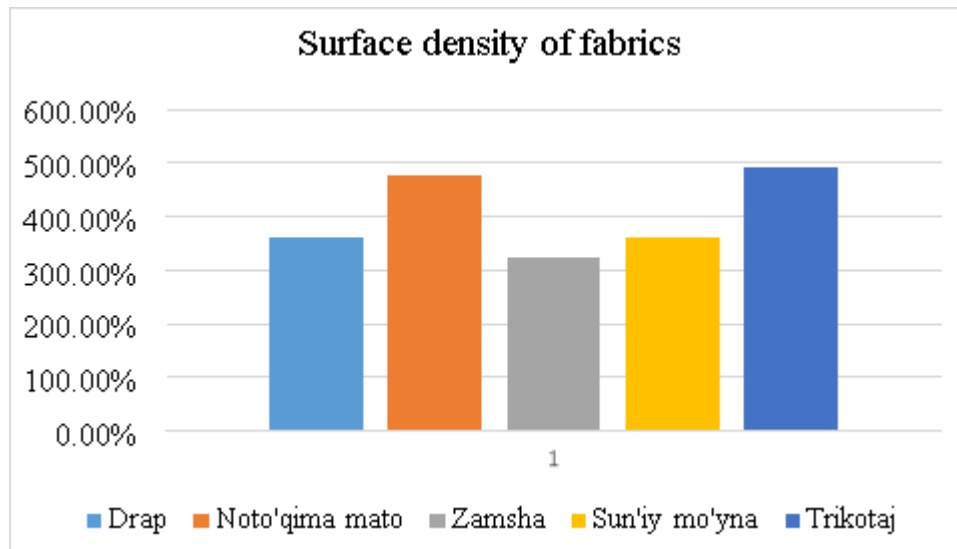


Figure 1. Surface density of fabrics

Abrasion resistance determines the appearance of the fabric of the coat after a period of use. Satin and sarja fabrics have a smooth surface and are less prone to abrasion. Friction on loose fabrics, drapes, curls, reps, tweed and other coats can cause various knots and threads to appear on the surface of the fabric. Abrasion resistance depends on the weaving of the coat fabric and the smoothness of the yarn. Multiple bending resistance determines the resistance of a coat to wear under the

influence of various forces. To increase the wear resistance of the coat, its details are glued to the folding sections of the fabric. These include the back of the sleeve, the tip of the sleeve, the mouth of the pocket, the edges of the collar, and the hem of the coat. In most cases, the function of protection against corrosion is performed by additional decorations on the top and bottom of the coat - canvas, coatings. This prolongs the wear life of the coat (Fig. 2).

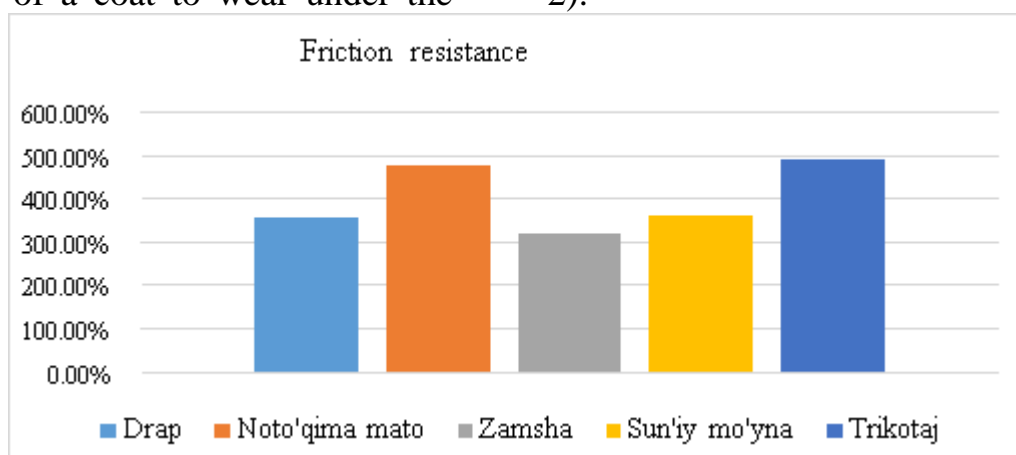


Fig. 2. Friction resistance of fabrics

The choice of materials for clothing is made taking into account the design features of the proposed model,

consumer and production requirements, as well as the diversity of accessories produced. In addition, the demand for






coat materials is determined by the region's temperate climate. High demands are placed on materials used in countries that are extremely cold.

The heat retention functions of different layers of clothing are not the same. That is why their structure and physical and mechanical properties must be different.

Physical and mechanical properties of coat fabrics

Table 3

The range of modern women's coats is diverse, they differ in shape, type of fabric, design, function and other characteristics.

For example	Name	Surface density, g / m ²	Thickness, cm	Breaking force		Elongation at break		Friction resistance	Air permeability	Compression, %		Intensity, (%)	
				Tanda	weft	Tanda	weft			Tanda	weft	Tanda	weft
	Drap	35 9,3	1	2 20	1 85	2 5	3 0	30, 0	35, 4	7 4,3	7 8,1	2, 4	1
	Nonwoven fabric	47 6,5	2 ,4	4 27	3 69	1 10	1 33	30, 0	87, 5	6 9,3	7 0,1	2, 3	0 ,9
	Artificial fur	35 9,9	1 ,1	4 99	3 21	2 1	3 6	30, 0	9,9 5	6 9,3	7 0,5	2, 0	1 ,8
	Knitwear	49 3,6	1 ,6	7 07	4 99	8 5	2 00	29, 5	32, 13	6 9,3	7 0,1	3, 5	2 ,5
	Zamsha	32 2,2	1 ,1	4 01	2 21	4 8	7 4	16, 5	54, 3	6 2,2	7 1,3	2, 3	1 ,2

The front of the coat is a collar and sleeves (long or 3/4-length), worn


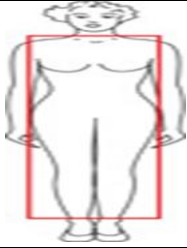

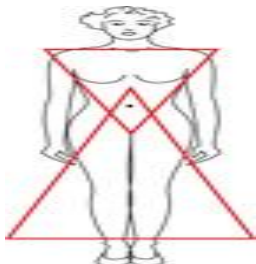

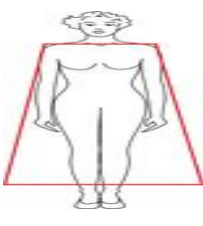
from top to bottom, often with pockets and collars. The coat is usually lined


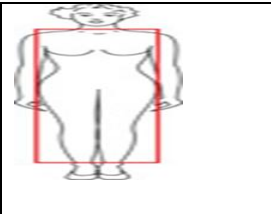

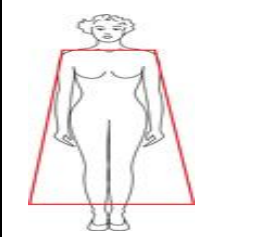

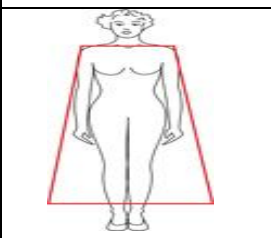
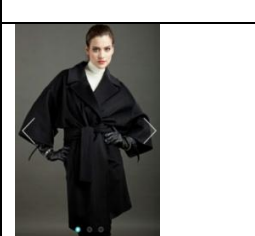
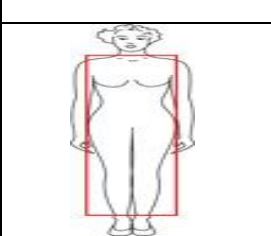
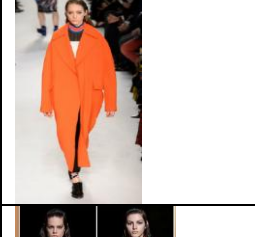
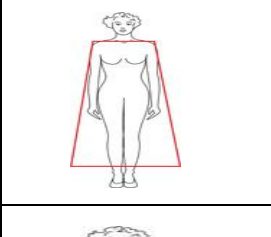

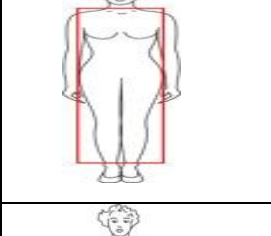

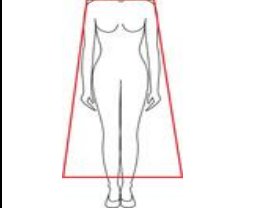
and worn over a shirt or suit. The coat is designed for winter (warm layer), autumn-spring (seasonal), summer


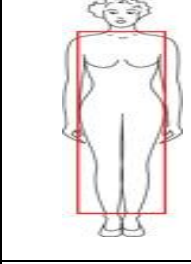

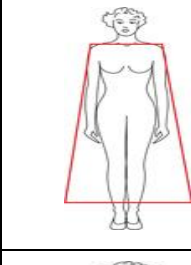

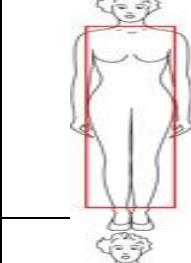

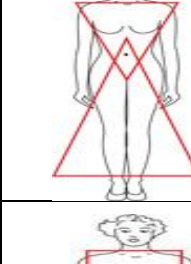
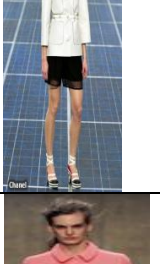
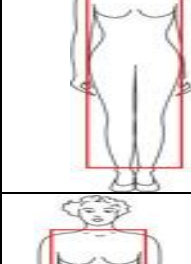
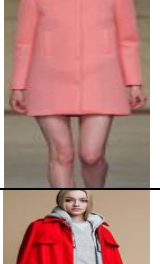
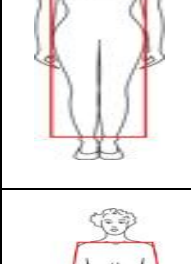

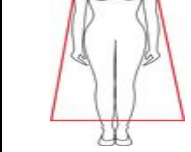
(light fabrics and without lining), and evening (as an ensemble with elegant evening dresses) [6]


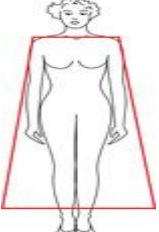

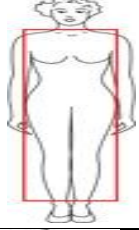

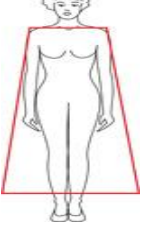

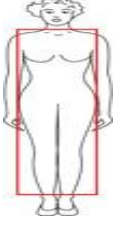

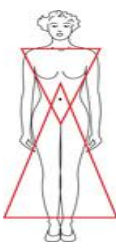


Figure 3. Geometric shapes of modern coats
A retrospective study of modern coat models
Table 4

No	Season	Appearance	The geometric shape of the silhouette	Description
1	Winter			Straight winter women's double-breasted, wide-sleeved, intricately shaped collar. Drapery, velvet, curls, etc. can be used as fabric.
2	Autumn and winter			Coat with a tight-fitting, narrow-sleeved coat with a scarf collar around the neck. Knitted, scotch, tweed, etc. can be used as fabric
3	Spring and autumn			Trapezoidal, short-sleeved women's short-sleeved coat with a modified pocket.

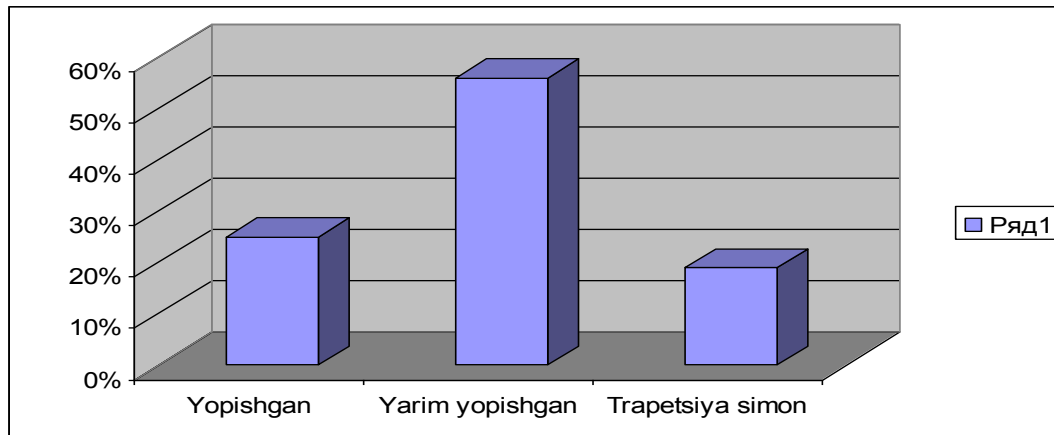
4	Autumn and winter			Straight-sleeved, short-sleeved, double-breasted, lattice collar. Tweed, cashmere, drapery fabrics can be used.
5	Winter			Trapezoidal, fur collar, intricately shaped women's coat. Velor, gabardine, cashmere, crepe, curl and stretch jacquard fabrics are available.
6	Spring and autumn			This season, the colors that are not bright are traditional: white, black, brown, gray, dirty-lily, dark green, sand. In addition, bright accents - fittings and accessories were used.
7	Spring and autumn			Extremely sophisticated and precise details, retro-style bushings and two-sided rags, oven details, rugged details
8	Winter			The collar of the coat is very wide, and the sleeves are also wide. Decoratively, the pockets are lined with pockets.
9	Spring and autumn			Coats with contrasting color lining, decorative ornaments, kegg sleeves, collarless coats
10	Spring and autumn			Extremely sophisticated and precise details, retro-style buckles and two-sided knuckles, oven details, curved details

11	Spring and autumn			Oversized latticework, fringe embellishments, asymmetrical collars, double valves of asymmetrical pockets, large loops, crooked, zigzag broken seams
12	Winter			Decorate the front of the coat with two rows of buttons, the collar is straight and wide. The three parts of the sleeve are also decorated with a few buttons.
13	Summer			The coat has a sleeveless collar, wide shoulders and multi-layered details. Curly and fluffy textured fabrics, velvet and astrakhan coats also look great
14	Spring and autumn			As a decor, the pockets come in a vertical arrangement, and the coat's sleek back emphasizes multi-layered details.
15	Summer			Lightning Coats, Buttonless, Two-Sided and Single Button Coats. Embossed stitching, high padded shoulder line, waistcoat. The hem is curved and the hem is multi-layered
16	Spring and autumn			As a decor, the pockets come in a vertical arrangement, and the coat's sleek back emphasizes multi-layered details.
17	Spring and autumn			Stitches were used as a decoration, and the chest was decorated with a double layer of fabric

18	Spring and autumn			The coat is placed on the decorative part so that the front part is fastened with buttons on the side. The collar of the coat is very wide, the end of the sleeve is decorated
19	Spring and autumn			The wide sleeve collar of the coat sleeve is very widely used, with emphasis on multi-layered details.
20	Spring and autumn			Coat-kimono, decorative collar, sleeveless, fitted with collar
21	Spring and autumn			Coats with contrasting color lining, decorative ornaments, kegg sleeves, collarless coats
22	Winter			As a decorative ornament, the collar is designed like a pigtail. Used decorative stitches /

Marketing research has been conducted to study the appearance of modern women's coats. The marketing research was analyzed from the websites and women's coats available in the country's retail stores. In order to prepare the first design of seasonal coats of modern design, a survey was conducted among 5,000 women aged 20 to 25 living in Namangan region and their needs for outerwear were studied. The results of the studied needs were

expressed on the basis of histograms (Figure 4).



4-picture.

The results of a survey on the choice of seasonal coat style for women. According to the results of a survey on the choice of the style of

women's seasonal coats, we can see that the need for a semi-adhesive silhouette is higher than for a trapezoidal silhouette (Figure 4).

Conclusion

Research results. During this study, the physical and mechanical properties of fabrics such as coat drapes, non-woven fabrics, faux fur, knitwear, suede were analyzed, and after the analysis, a conceptual design

describing the appearance of the developed product was developed. Based on the results, a fabric was selected for the intricately shaped modern women's coat. [8]

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