

устранения не обнаружено. Контрольные карты наглядно отражают ход процесса на диаграмме и являются техническим вспомогательным средством их статистического регулирования при необходимости.

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ANALYSIS OF THE EXPLUTATION CHARACTERISTICS OF SPECIAL FABRICS

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Annotation. In the article, during analysis of the exploitation characteristics of special fabrics, the special fabrics available on the market were studied through a questionnaire, the advantages and disadvantages of special clothes were studied. Also, the classification of special fabrics was studied.

Key words: technical fabrics, fabrics for special cloths, protective properties, respondent.

Аннотация. В статье в ходе анализа эксплуатационных характеристик специальных тканей через анкету были изучены имеющиеся на рынке специальные ткани, изучены преимущества и недостатки специальной одежды. Также была изучена классификация специальных тканей.

Ключевые слова: технические ткани, ткани для спецодежды, защитные свойства, ответчик.

Special fabrics are divided into two types according to the field of use and function:

1. Technical fabrics
2. Fabrics for special cloths

Table 1 summarizes the application areas of special fabrics.

Table 1 – Applications of special fabrics

Civil and agricultural engineering	Automotive and space industry	Medicine	Military and protection	Others
Geotextiles, geomembranes and geocomposites, e.g. utilities for the ground Filtering Drainage Erosion control Waterproof Soil stabilisation for vegetative farming Underground irrigation system (used for irrigation and adding fertilizer and pesticides)	Tire reinforcement Seatbelts Air bags Vehicle interiors Bumpers Wings Engine boost Flexible vehicle tanks Parachutes, balloons	Dressing wounds Bandages Barriers to bacteria Sterile dressings Blood filtration valves (dialysis) Surrogate ligaments Artificial arteries Synthetic filters	Barrier to: chemicals, heat, moisture, flame and sound waves Insulations Workwear Personal armour (vests, helmets, gloves, etc.)	Ship engineering Electronics Filter industry Food processing Sports and recreation (e. g., belts, ropes, kayaks, yachts, cables, cleaning clothes, tennis rackets, tents)

I. V. Kureneva developed special textiles for protection against oil, T. A. Proskurdina developed special clothing for industrial workers, I.N. Ivashenko developed special textiles resistant to low temperatures in the oil industry, E.A. Popadko developed special textiles protecting against acids, N.V. Afinogentova and Mamasoliyeva Sh.L. In their dissertations, L.I. Litarovich studied the deformation properties of special fabrics, and O. Aleynikova studied the heat resistance properties of special fabrics for employees of the automobile industry.

According to the Interstate standard 12.4.103-83 "Definition of protective properties" standard, special clothing is classified according to protective properties:

1. Special clothes protecting against mechanical effects;
2. Special clothing for protection against high temperatures;
3. Special clothing for protection against low temperatures;
4. Special clothes that protect against radioactive and X-rays;
5. Special clothing for protection against electric current, electrostatic charges and fields, electric and electromagnetic fields;
6. Special protective clothing against non-toxic dust;
7. Special protective clothing against toxic substances;
8. Special clothing for protection against water and solutions of non-toxic substances;
9. Special protective clothing against alkalis;
10. Special protective clothing against oil, oil products, oils and fats;
11. Special protective clothing against harmful biological factors;
12. special protective clothing against general production pollution;
13. Signal clothes.

The optimal indicator for the number of respondents is 36 people, as the average ($C = 15\%$) and research accuracy ($\delta = 5\%$) level of reliable probability $p = 0.95$ while ensuring the consistency of the opinions of experts. 36 people should be surveyed in order to accurately reflect the results of the research.

To study the demand of consumers, a questionnaire was developed in column A of Table 2.

Table 2 – Questionnaire data

Questionnaire blog	List of questions
Questions related to the consumer	1. age of the respondent 2. workplace 3. social status of the respondent
Questions clarifying the demand of the consumer to buy special clothes	1. period of changing clothes 2. reason for replacement 3. where the clothes were purchase 4. wash cycle
Questions clarifying the demand for special fabrics	1. the demand for the composition of the fabric 2. what features lead to the choice of special clothes
Questions clarifying the characteristics of special fabrics	1. product composition 2. hygroscopicity 3. abrasion resistance 4. color stability 5. ironing 6. washing quality 7. resistance to creases 8. appearance

The study of the reasons for changing clothes of builders gave the following information: the main reason is that they lose their properties after being washed many times, that is, the lack of friction cycle. This situation is 47 %. External random factors, tears 23 %, discoloration due to sun and high temperature 17 % and other reasons.

When we studied the opinions of consumers, 37 % of builders preferred special clothes made of mixed fabrics of cotton and chemical threads. 23 % preferred clothes made only from natural fabric. The rest did not admit that the composition of raw materials is not important when choosing clothes.

According to the survey, durability, stitching, breathability, and low price are the most important factors for builders when choosing clothes. It showed that it does not matter where it was produced. As a result of the analysis of the requirements of the consumers regarding the quality of the fabric, it was found that they unanimously recognize the importance of the following quality indicators:

- air permeability;
- friction resistance;
- appearance;
- color consistency;
- good ironing ability;
- easy to wash.

The analysis of each block gave the following indicators: according to the questionnaire, the age range of builders is 30–44 years. Basically, the clothes are provided by the employer.

The problem of improving the assortment and quality of special clothes according to the requirements is important. In the complex of measures to ensure the safety of employees and prevent occupational diseases, which is one of the necessary conditions for reducing the impact of harmful and harmful production factors on a person and ensuring his high performance, the importance of special clothing occupies a special place. The state policy in the field of labor protection is based on the principles of the priority of the life and health of the employee in relation to the results of the production activity of the enterprise. In order to create comfortable conditions, one of the important principles is to provide workers with special clothes and shoes, personal protective equipment that protect them from harmful production and climatic factors. With that in mind, we've explored the builder-specific apparel available on the market.

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