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## PROTECTIVE PROPERTIES OF TEXTILES FOR THE MANUFACTURE OF URBAN-STYLE CLOTHING FOR UKRAINE

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*Modern urban life is largely unsafe for people, therefore more and more clothing manufacturers create suits from textile materials with elements of protection from negative factors. Depending on the nature of the impact of the main adverse factor, as well as the geographical region, cultural characteristics, etc., various brands have developed clothing lines for residents of megacities. This trend in clothing design is also supported by Ukrainian manufacturers; however, there is a certain discrepancy in the proposed functions of such clothes. Insufficient knowledge of the mechanism of the impact of the main adverse factors and the protective capabilities of textiles, and often simply copying foreign brands, is the main reason for the low popularity of urban-style clothing made in Ukraine. Therefore, given the unfavorable situation in the world, there is a need for the production of urban-style clothing with elements of special protection for residents of Ukraine.*

**Key words:** *urban style, protective clothing, textile materials.*

### INTRODUCTION

Development of transport, increase in the number of industries, general change in the environmental situation, etc. led to the fact that life in megacities is characterized by an increase in the negative impact on human physical health. The current environmental situation in Ukraine and a small number of eco-friendly industries make the urban population have a different attitude to everyday clothes. So, in urban-style suits there are references to models of military and medical suits in the form of similar textile materials or tailoring. Today, in the city, tactical jackets are often found that reference military vests for soldiers by its tailoring and which are adapted to the needs of the urban resident. In addition to militaristic references, clothing for urban residents of some brands is supplemented with accessories in the form of transformer hats that can be used as protective masks (balaclava), or dressings in the manner of Korean textile dust masks for the face. Obviously, the more protective functions in clothes, the more difficult it is to make them, and, as a result, the price of clothes increases. The Ukrainian clothing market is filled with a variety of high-tech clothing items of Ukrainian and foreign production, most of the functions of which are not used in the region



for various reasons. Therefore, with such a variety of useful functions in clothes, it is necessary to understand which of them are necessary for life in a big Ukrainian city.

### **PURPOSE**

To design urban-style clothing and its successful implementation by Ukrainian sewing and textile industries, the main negative factors affecting a person and the protective functions of textile materials for clothing should be taken into account. The identification of negative influencing factors and the properties of textiles that can minimize the impact of these factors is the goal of this study.

### **RESULTS AND DISCUSSION**

About five hundred cities are in Ukraine, and the population of three of them is more than a million people. Each city is characterized by climatic, environmental features, as well as the general infrastructure and its rhythm. According to [1, 2], the city is unsafe for humans in the following: air pollution, traffic noise, traffic (traffic and number of highways), constant lighting, moving around the city, as well as criminal danger and instability of the mental state due to permanent contact with a lot of people. For Ukrainian cities, both large and small, a common negative factor is air pollution, since in Ukraine there are a large number of mining and processing industries [3]. Also in Ukraine, due to the shortcomings of the punitive system, thefts are constant. It is difficult to attribute the problem of constant lighting to Ukraine; instead, on the contrary, there are a high number of car accidents due to poor visibility in the dark [4]. A common negative source of influence for all Ukrainian cities is the emotional fragmentation of society, caused by the inconsistency of state policy, as well as the difficult military situation in the country. In connection with the latest epidemiological events in Asian countries, for Ukraine, in addition to the risk of air pollution, there is a biological hazard. Also, do not exclude weather and atmospheric phenomena. For example, Kiev and Kharkov are characterized by lower temperatures, while in Odessa, on the contrary, the climate is warmer. Based on these factors, the main protective properties of textile materials, from which it is advisable to make urban-style clothing for residents of Ukraine, are as follows:

1. Dust capacity and breathability of the material for clothing should be such as to minimize the amount of dust that lingers and passing through the surface of the clothing material, and also ensure optimal heat transfer. To do this, it is advisable to make clothes from multilayer fabrics or from a package of fabrics.

2. The optical characteristics of the surface of the clothes should be such as to ensure the visibility of the person for cars in low light, i.e. contain reflective elements.

3. Clothing should have acoustic properties, namely to muffle noise, and also, when moving, not make additional noise. For this, materials with a low coefficient of friction and roughness are preferred.



4. To protect against possible thefts and attacks, clothing should have not only protected pockets, but also be made of a sufficiently dense material that is resistant to cutting and tearing.

5. For the mental stability of a person, clothing should be aesthetically pleasing. For this, a certain coloristic solution can be used (for example, a neutral color of clothes), or some decor elements in the form of a printed drawing, embroidery or hologram with semantic symbols.

6. To ensure the mobility of the city dweller, clothing should be comfortable for movement and at the same time remain aesthetic and express the individuality of the owner.

7. Taking into account the current situation in the world in connection with the pandemic, protection from microorganisms is necessary for the urban population, therefore antimicrobial treatment is also recommended for urban clothing.

### **CONCLUSIONS**

The proposed properties of clothing for protection from the adverse effects of urban conditions on a person largely depend on the quality of the textile material, namely on the properties of its surface - color, friction, aesthetic appearance, microbial stability, and structural parameters that affect mechanical, optical and acoustic properties. Therefore, when designing textile materials for urban-style clothing and in its production, an integrated approach is necessary, taking into account material science aspects and product ergonomics, which is the task of further research.

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