UDC 677/07 / 677/017/42 / 677/017/82

EVALUATION OF CONSUMER-ORIENTED PROPERTIES OF UPHOLSTERY FABRICS

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Key words: compound materials, car seat covers, consumer-oriented properties, durability and strength.

Abstract. This article presents the findings from my research devoted to examination of durability of tripled compound materials composed of polyester knitted fabric and polyurethane foam that are used for car seat covers.

Recently, use of textile materials became more popular in automotive industry. Replacement of artificial leather with textile materials allows us to improve the quality of car interior, provide comfort and create more aesthetic appearance. Tripled compound materials are among the most common materials used for interior trim. Exterior layer of such materials is usually made of various upholstery fabrics (flocked fabrics, tweed, artificial or genuine leather, velour, napped fabrics, flat knitted fabrics and textile). Polyurethane foam is usually used for the middle layer. Bach layer is made of knitted fabric or spunbond (fine nonwoven fabric).

The properties of compound materials are determined according to the properties of raw materials and methods of layers combination. Raw materials are used according to technical standards and their properties have been sufficiently studied. However, complete and accurate information about the properties of modern compound materials (including data on their modification during utilization) doesn't exist. Neither do technical standards. Hence the practical interest of this research devoted to examination of the properties of complex materials is obvious [2, p. 81].

Consumer-oriented properties of upholstery fabrics are paramount. They include various physical and mechanical parameters, namely high durability and wear resistance, colorfastness to friction, dry-cleaning, light and weather, fire resistance and low level of static electricity. According to questionnaires answered by drivers and producers of car seat covers, the most important consumer-oriented properties of upholstery fabrics are durability, resistance to abrasion, deformation behavior and fire resistance.

Subjects of this research are compound materials constituting of polyester fabric (made of air texturised yarn) tripled by polyurethane foam and knitted fabric (layers are attached by thermal melt of polyurethane foam (table 1).

| Sample | Description of exterior layer | | | Surface | |
|--------|-------------------------------|----------------------|------------------|------------------------------|------------------|
| | type of material | fibre composition | weave | density, g/m ² | Thickness, mm |
| 1 | knitted fabric | polyester thread | warp knitting | 348 | 1,05 |
| 2 | knitted fabric | polyester thread | warp knitting | 336 | 0,96 |
| 3 | knitted fabric | polyester thread | warp knitting | 356 | 1,32 |
| 4 | knitted fabric | polyester thread | warp knitting | 464 | 1,25 |

Table 1 – Description of research subjects

Resistance to flat abrasion was tested according to developed technique on IT-3M apparatus. All studied samples withstood more than 10,000 cycles which proves high endurance of materials. Such endurance can be explained by fibrous composition of the exterior layer (polyester fibers) [1, p. 33].

Tensile behavior of materials was tested on PT-250M tensile testing machine. Resistance of studied samples of compound materials is good enough, but their shape deforms under strain stress (table 2). These particular qualities shall be taken into account while choosing materials for thread seams of car seat covers made of tested fabrics.

| Sample | Tensile strength P _p , N | | Tensile elongation, % | | |
|--------|-------------------------------------|--------------|-----------------------|--------------|--|
| | lengthways | transversely | lengthways | transversely | |
| 1 | 976 | 478 | 43 | 180 | |
| 2 | 701 | 1240 | 56 | 83 | |
| 3 | 942 | 941 | 54 | 130 | |
| 4 | 927 | 401 | 56 | 153 | |

Table 2 – Description of tensile behavior of materials under strain stress

Thus the presented findings from my research devoted to examination of some consumer-oriented properties of tripled fabrics indicate high durability of such materials and their resistance to abrasion. Hence all tested fabrics can be recommended as upholstery for car seats and as a material for car seat covers. Findings from this research can be helpful to producers and consumers of fabrics. This research is still in progress. List of testing indices and research subjects is extended according to questionnaires.

References

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UDC 687.01

RESEARCH OF STREET FASHION STYLES

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Key words: street style, streetwear, fashion, collection, style concept, clothes. Abstract. This article presents information about the reasons of appearance of street fashion and its history, as well as an analysis of street fashion styles, their characteristics, concept, attributes and clothes elements. There was considered a question of the influence of street fashion on haute couture fashion, the use of fashion trends elements of street styles in the creation of modern clothing collections by fashion designers.

Street fashion or Street style is a modern alternative to high fashion and promotion any clothing style and appearance that emerged, developed and acquired their fans due to his demonstration on the street. Street fashion is a part of the youth culture. It is in contact with non-traditional sports, musical trends, the political and social movements that arise among the youth. Street fashion phenomenon has become the best known in large cities.

Street fashion appeared in England in the early 50s of the 20th century as a result of the aggravation of relations between the generations. Tastes in clothing were formed under the influence of various youth subcultures (see figure, a). Leather jackets became the main attribute of the street fashion of that time.

Japanese are also considered the founders of street style (see figure, b). In the late 80-years of XX century after long living under the strict subjection they rebelled and arranged a revolution against the conservative ideals of beauty and social principles. This Japanese fashion presented a bright colors and a retreat from rules of combination [1].