

**Interdependence Between The Breaking Force Of The Fabrics Meant For  
Aeronautic Field And Yarns Characteristics**

Mihai, Anghel, Bucevschi, Popa,.. no.2/2006

This paper and work is part of a research contract involving the production of a fabric meant for the piping of ventilation and heat installation for the military helicopter IAR 330. Aspects linked to the focus of interdependence relationships between the breaking force in the warp direction and the yarns characteristics for the fabrics are addressed. There were performed more yarn variants of which two types of fabrics were accomplished and analyzed. The present paper reveals the way in which the yarns characteristics influence the fabric characteristics.

Key words: yarns, fabric, military helicopter, yarns characteristics, breaking force, interdependence

**Structural Parameters For Woven Textile Articles Meant  
For An Inflatable Modular System**

Anghel, Mihai, Scarlat,... no.2/2006

The modular system for simulating the naval engagement tactics is destined to the battle division from the General Staff of the Naval Forces, and is used for instruction and training. The system consists in a small number of components (6 floats + casing) which, through a fast assembling, may generate a complex matrix structure playing the part of a “false” target during the real or simulated naval engagement missions. For designing both the fabrics destined to the casing of the target and the supporting floats, there have been taken into consideration the following minimal requirements: the maximum straining of the basic supports should not exceed the straining allowed for wind speed of 31 m/sec and a condition of the sea of the 7<sup>th</sup> degree; the minimum load in the system should be a stretching one, although local distortions of the surfaces may be tolerated; no instability of the system on the wave should arise because of the wind load, or its running out of the water surface, because of the waves; the strainings that are developed inside the basic supports should meet the three above mentioned requirements if they are to be added to the external forces. The materials that are used, as well as the shape and constructive dimensions should provide high characteristics to the target regarding: mechanical resistance to the environmental factors: waves, wind, currents, stability on the wave, a good floatability on the water under difficult weather conditions, visibility at great distance, contrast color with the sea one, air- retention capacity, water resistance.

Key words: structural parameters, fabric, naval target, yarns

**Geotextiles Containing Fibers Recovered From Reusable Textile Materials.**

**Part I. Fibrous blends with fibers reclaimed from textile wastes**

Preda, Campeanu, ..no.2/2006

The technological processes for obtaining the recycled materials by cutting – opening – de-fibered are considered efficient if the outputs are greater than 85%. To increase the efficiency at the de-fibered operation, recycled fibers are blended with fibers at first usage. In this way, it is possible to deliver a continuous card web and a percent of short fibers is carried over by the new fibers. To improve the characteristics of the fibrous blends, it was selected the combination of the recovered fibers with polypropylene fibers at the first usage, in three variants, with different shares of the constituents. From the experimented fibrous blends meant for geo-textiles manufacturing, the recommendation is to use the ones having 50% polypropylene fibers at first usage and 50% fibers recycled from waste textile materials.

**Key words:** reusable materials, fibrous blends, primary processing, mixture, length ranging

**Quality Assuring Through Inter-Laboratory Trials**

Vulpe, Carceag, Popescu, no.2/2006

Usage of the inter-laboratory comparison system as instrument of verification for trial laboratories proficiency is imposed by the satisfaction of ISO 9001 and SR EN ISO 17025 :2001 « General requirements for the competence of testing and calibration laboratories », also being an objective tool for their technical competence verification. The article specifies: the objectives and implications of the inter-laboratory comparison; the algorithm to perform a laboratory trial; the selection of inter-laboratory comparison scheme, and results application mode. It is mentioned INCDTP participation in more rounds of inter-laboratory comparisons with laboratories in the country and European Union.

**Key words:** quality, inter-laboratory comparisons, schemes, accreditation, technical competence/proficiency

**Methods Of Testing The Abrasion Resistance And The Pilling Effect.  
Part II.**

Surdu, Vulpe, Popescu, no.2/2006

The pilling effect is an aspect characteristic , very important for the textile products. The actual concerns of the researches lay emphasis on the optimization processes, namely on achieving final products with intrinsic qualities, which should meet the requirements of the most over-particular user. The developed methodology settles the way to determine the pilling effect and may be used both for woven materials and for knitted ones, in accordance with the requirements of SR EN ISO 12 945-1. The textile materials that are well designed prove their strong points in the daily wearing, when the real evaluation of the article is performed. This is the point in which the quality of the used fibers is demonstrated, together with its advantages and disadvantages.

The final evaluation of a fiber pilling may be achieved by testing the final textile product, namely only after this has been worn a certain period of time, as the pilling does not show all of a sudden, but goes through a number of developing stages.

Key words: pilling, Orbitor, method, testing, reduction