



P-C-1230

ALFA FIBERS IN COMPOSITE MATERIALS

^{1,2} Y. Benyoussif, ¹ B. Vermeulen, P. Vroman^{1,3}, ¹ X. Legrand, ¹ A. Perwuelz, R. Bencheikh⁴

¹ Laboratoire Génie et Matériaux TEXTiles, GEMTEX of Roubaix, France, ² Ecole supérieure des industries de textile et de l'habillement, ESITH of Casablanca, Morocco, ³ Centre Européen des Nontissés, CENT of Tourcoing, France and ⁴ UR Synthèse et Analyse des Matériaux, ENIT of Tunis, Tunisia

The research aims to study the feasibility of composite materials based on Alfa fiber, particularly for achieving orthopedic apparels.

The tests at the GEMTEX laboratory, fineness and strength, have been realized with the individual fiber. Preliminary tests concerning mixture Alfa/wool and Alfa/PP were been made with an addition of a bicomponent fiber.

A wide range of non-woven samples were obtained inside the CENT by different solutions for web bonding. Therefore, the products are characterized in the laboratory.

The last step is the realization and characterization of the material composite, and then a comparison of the results between Alfa, fiber glass and PET composite materials.