PULLOUT TESTS BEHAVIOR OF POLYESTER MATRIX REINFORCED WITH MALVA FIBER

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Resumo:
The interface between the matrix and the reinforcement with fibers plays an important role in the efficiency when a charge is applied. In this job an evaluation was done of the shear interfacial tension of malva fiber reinforcing a polyester matrix. Realizing pullout tests of malva fibers built-in polyester capsules it was obtained the critic length, interfacial tension and a SEM of the ruptured regions was analyzed. The results revealed a superficial shear tension similar to the other lignocellulosic fibers and showed a reasonable interfacial adhesion due to the heterogeneous nature of Malva fiber, what facilitates the impregnation by the matrix. Keywords: epoxy composite, malva fiber, mechanical behavior, fracture analysis.