

This paper concerns an experimental approach to the stacking sequence influence on cross-ply laminates behaviour. Effects of fatigue on the residual strength and stiffness are investigated through performing post fatigue static test after specific numbers of cycles. Residual strengths were measured by testing specimens to a certain number of cycles then static tests to rupture were performed after the specimen had been unloaded without being removed. The results obtained indicate that as well as there is a drop in the specimen's stiffness, there is a drop in the strength of the laminate as the number of cycle increases. However, this is also accompanied by an increase in the displacement mainly at higher number of cycles. The hysteresis loops revealed that a significant decrease in the maximum fatigue load was occurring as the number of cycles increased. It is also noted that the slope of the hysteresis loops decreased with respect to the number of cycles. However, a less significant drop in the minimum fatigue load than the maximum fatigue one was also observed