

## ABSTRACT:

This paper studies the complex thermal deformation of single-ply triaxial weave composites. This behaviour is studied experimentally, by testing flat plates and narrow strips of TWF, and numerically, by carrying out finite-element simulations that capture the effects of the thermo-mechanical anisotropy of the individual tows that make up the composite. It is shown that the dominating effect is the development of a thermally-induced twist..