

عنوان مقاله:

Computational Fluids Dynamics Simulation to Predict Vacuum Infusion Process

محل انتشار:

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خلاصه مقاله:

Vacuum infusion is one of the usual processes to build composite materials. To find the place for resin injection or vacuum suction, the experts usually employ their experiences. In this study a hemisphere is simulated by ANSYS-FLUENT 15 commercial software for prediction of vacuum infusion process to find the best place for resin injection as well as the number of required resin inlets. For the simulations, the hemisphere with radius of 300 mm considered and the fibers thickness of 5.53 mm as a porous medium with 0.494 porosity. Different conditions have investigated for the simulations of the geometry. The results showed that Computational Fluids Dynamics (CFD) simulation is a strong tool to predict the best condition for the vacuum infusion process

کلمات کلیدی:

Vacuum infusion, Computational Fluids Dynamics, Porous medium

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