



Innovative software suite for advanced micromechanical modelling of composite materials and structures

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Abstract

A Luxembourg-based engineering company has developed a micromechanical modelling software targeted toward composite material suppliers (chemical companies) and users (automotive and aerospace). This powerful simulation tool links the manufacturing process to the final product performance via the material's microstructure. The company would like to build commercial relationships by providing all the support for implementation and training.

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Description

A Luxembourg-based engineering company develops and commercialises a software application and related consulting services for multi-scale modelling of advanced materials, products and processes. The core technology of the company is advanced material modelling using linear and non-linear homogenisation techniques to predict the influence of the material microstructure on its macroscopic thermo-mechanical properties.

Innovations and advantages of the offer

- Unique, effective and efficient micromechanical material modelling software for real industrial applications.
- Bridges the gap between process parameters and product performance.

The software enables accurate and efficient modelling of complex materials phenomena within realistic structural models. Thus, it increases trust in the mechanical simulation of composite materials, and decreases the need for exhaustive testing.