Temperature behavior visualization on rubber material involving phase change simulation.

ABSTRACT

Material engineers are excited with the design of a new rubber product through the development of a new composite of the rubber product. Our research contributes in developing the mathematical simulation based on Gauss- Seidel Red-Black and Gauss-Seidel method to solve the temperature behavior of the rubber elasticity, strength, etropy and classical experiments through reference publications and stimulating rubber physics research elsewhere. The temperature behavior leads to the partial differential equation of heat transfer problems involving phase change simulation. The prototype of the algorithm implemented on Linux operating systems using C language.

Keyword: Rubber; Temperature behavior; Heat transfer; Phase change simulation; Parabolic equation; Latex.