Coupled Effect of Humidity Temperature and Strain-Rate in PA 66; Experimental and Modelling

N. BILLON

Mines-Paristech CEMEF, CS 10207, 06904 Sophia Antipolis France

Visco hyperelastic-viscoplastic properties of PA 66 is explored as a function of temperature, strain rate and humidity close to Tg.

Well known time temperature superposition is revisited to extend analyse to humidity content in PA 66.

This new superposition principle is used as a parameter in a visco elastic model developed in CEMEF based on a network theory.