

## Abstract

This report describes some validation tests of the numerical model of symmetrical sandwich beam. The model can simulate static and dynamical responses. Static loads include 3- and 4-point bending. Dynamical responses include the computation of resonance frequencies and modal shapes. The numerical model will be used for the identification of the transverse shear modulus of the polymer layer based on measured resonance frequencies of a test beam. The resonance frequencies of a free-free suspended sandwich beam will be measured using an impulse excitation technique. The vibration amplitudes of the test beam will be very small. This will allow assuming a small deformation theory and linear material behavior in the numerical model of the sandwich beam.