ENR145 Assignment #6: happy COMSOL folks!

Due: 3/2/25 12:00 pm

Build a solid mechanics COMSOL simulation of

An 1m x 1m x 1m Tofu block, constrained with one fixed face constrains, under the force load of 10G.

Here's the spec of Tofu:

Apparent Young's modulus (kPa)
121.06±2.43 b

The Poisson's ratio was assumed to be 0.45.

The apparent density of tofu was $1053–1251\,\mathrm{kg\,m^{-3}}$

I kid you not, those data are from research papers:

ELSEVIER

Chemical Engineering and Processing: Process Intensification

Volume 46, Issue 5, May 2007, Pages 486-490

Short communication

Application of two-stage ohmic heating to tofu processing

Li-Jun Wang [a], Dong Li [b], Eizo Tatsumi [c], Zhi-Sheng Liu [d], Xiao Dong Chen [e], Li-Te Li [a]

▸ IEEE Trans Biomed Eng. Author manuscript; available in PMC: 2016 Jan 31.

Published in final edited form as: IEEE Trans Biomed Eng. 2014 Sep 15;62(2):443–449. doi: 10.1109/TBME.2014.2357771

A dynamic mechanical analysis technique for porous media

Adam J Pattison [1], Matthew McGarry [2], John B Weaver [3], Keith D Paulsen [4]

▸ Author information ▸ Article notes ▸ Copyright and License information

PMCID: PMC4416946 NIHMSID: NIHMS677401 PMID: 25248170

To cite this article: Oon-Doo Baik & Gauri S. Mittal (2003) Determination and Modeling of Thermal Properties of Tofu, International Journal of Food Properties, 6:1, 9-24, DOI: 10.1081/JFP-120016621

You have to find a way to apply 10G forces.

To prove your effects, submit a slide with screenshot of crucial steps, and the result of stress and strain surface and slice view.