



Foam & Viscoelastic Materials in LS-DYNA

Objective of the course: Learn about several foam material models in LS-DYNA to solve engineering problems. Detailed descriptions are given of the data required to use such material in analysis. Examples are used to illustrate the points made in the lectures.

Introduction

Experimental Characterization

Material Models for Viscoelasticity

- *MAT_VISCOELASTIC (*MAT_6)
- *MAT_KELVINMAXWELL_VISCOELASTIC (*MAT_61)
- *MAT_GENERAL_VISCOELASTIC (*MAT_76)

Material Models for Foam in LSDYNA

MATERIAL TYPE	KEYWORD NAME
5	*MAT_SOIL_AND_FOAM
26	*MAT_HONEYCOMB
38	*MAT_BLATZ-KO_FOAM
53	*MAT_CLOSED_CELL_FOAM
57	*MAT_LOW_DENSITY_FOAM
62	*MAT_VISCOUS_FOAM
63	*MAT_CRUSHABLE_FOAM
73	*MAT_LOW_DENSITY_VISCOUS_FOAM
75	*MAT_BILKHU/DUBOIS_FOAM
83	*MAT_FU_CHANG_FOAM

Material Data & Behavior Demonstration

Concluding Remarks

