

- Test Thermoelastic.mph (root)
  - Global Definitions
  - Model 1 (mod1)
    - Definitions
    - Geometry 1
    - Materials
      - Au (mat1)
      - Pt (mat2)
      - AlN (mat4)
      - Diamond (mat5)**
        - basic (def)
        - Anisotropic (Anisotropic)
    - Thermoelasticity (te)
    - Mesh 1
    - Study 3
    - Results

### Geometric Entity Selection

Geometric entity level: Domain

Selection: Manual

1  
5  
9

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### Override

### Material Properties

### Material Contents

Property	Name	Value	Unit	Property group
✓ Density	rho	3500[kg/m^3]	kg/...	Basic
✓ Coefficient of thermal expan...	alpha	2.6e-6[1/K]	1/K	Basic
✓ Thermal conductivity	k	90[W/(m*K)]	W/(...	Basic
✓ Heat capacity at constant pr...	Cp	700[J/(kg*K)]	J/(kg...	Basic
✓ <u>Elasticity matrix</u>	D	{857.0945e+09[...]	Pa	Anisotropic
Young's modulus	E	800e+09[Pa]	Pa	Basic
Poisson's ratio	nu	0.3	1	Basic
Loss factor for elasticity matr...	eta_D	0	1	Anisotropic

- Materials
  - Thermoelasticity (te)
    - Linear Thermoelastic Material 1**
    - Thermal Insulation 1
    - Free 1
    - Initial Values 1
    - Linear Thermoelastic Material 2
    - Linear Elastic Material 1
    - Linear Elastic Material 2
    - Fixed Constraint 1
    - Zero Temperature Deviation 1
    - Equation View
  - Mesh 1
  - Study 3
  - Results

6 (overridden)  
7 (overridden)  
8 (overridden)

### Override and Contribution

### Equation

### Model Inputs

Equilibrium temperature:

$T_0$  User defined

293.15[K] K

### Coordinate System Selection

Coordinate system: Global coordinate system

### Linear Elastic Material

Nearly incompressible material

Solid model: Anisotropic

Material data ordering: Standard (XX, YY, ZZ, XY, YZ, XZ)