

# **FEM Analysis Report on Rectangular Thin Plate Loading**

## **(Non-conforming 4-noded MZC Rectangular Element)**

### Plate Variables

Length: 10.00  
Width: 10.00  
Thickness: 0.0010  
Density: 0  
Young's Modulus:  $1.1\text{e}+12$   
Poisson's Ratio: 0.30

### Result Summary

Total Nodes: 9  
Total Elements: 4

Max. Vertical Displacement: -0.15625  
Min. Vertical Displacement: 0  
Max. X-Rotation: 0  
Min. X-Rotation: 0  
Max. Y-Rotation: 0  
Min. Y-Rotation: 0

Max. Mx-Stress: -4.875  
Min. Mx-Stress: -2.2204e-16  
Max. My-Stress: -4.875  
Min. My-Stress: -2.2204e-16  
Max. Mxy-Stress: -0.4375  
Min. Mxy-Stress: 0

Max. Vertical Reaction Force: 17.5  
Min. Vertical Reaction Force: 0  
Max. X-Reaction Moment: 22.917  
Min. X-Reaction Moment: 0  
Max. Y-Reaction Moment: 22.917  
Min. Y-Reaction Moment: 0

## Contour Plots





