

Question 17

Q: In 2D stress analysis, what result is affected by [Thickness in Depth Direction]?

A: How the result is affected by the thickness varies depending on the type of boundary condition relating to mechanics.

When [Displacement] or [Pressure] is set, the thickness itself does not directly affect the calculation result.

However, when [Force] is set to a boundary condition, the thickness will change the force per thickness, affecting the resultant stress and displacement distributions.

For instance, when applying 1 N to a model with a 1 mm thickness, it results in a force per unit thickness of 1 N/mm. In contrast, if we apply 1 [N] force to a model with a 2 mm thickness, it would have a force per unit thickness of 0.5 N/mm.