

Crack Between Neo-Hookean Material and Rigid Body - Physics Setup

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Physics Setup

The appropriate boundary condition can be imposed in two steps:

First, this is a nonlinear problem, the calculation process should be divided into several steps in order to make the results converged to the correct solution. This problem can be solved by using the sub-steps in ANSYS.

Second, we should apply varying shear load on the arc boundary which cannot be set up by function in ANSYS Mechanical directly. To solve the problem, we have to use Mechanical APDL to create a function command and assign this command to the arc in ANSYS Mechanical.

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