## ANSYS - Crack Between Neo-Hookean Material and Rigid Body

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## Crack Between Neo-Hookean Material and Rigid Body

Created using ANSYS 13.0

## **Problem Specification**

An infinitely long plane is subjected to vertical tensile load. As shown in the picture below, half of the infinite plane is Neo-Hookean material and the other half is a rigid body. There is a traction free crack tip with length 2a on the interface. The region that will be modeled is a small circle around the crack tip, as shown in the same picture. The crack tip is at the center of the semicirce. Neo-Hookean material will exhibit linear elastic behavior when the strain is small and the linear elastic crack solution will be set as the boundary condition in this model.



Go to Step 1: Pre-Analysis & Start-Up

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