Thermal Stresses in a Bar - Numerical Results

Author: Ben Mullen, Cornell University Problem Specification 1. Pre-Analysis & Start-Up 2. Geometry 3. Mesh 4. Physics Setup 5. Numerical Solution 6. Numerical Results 7. Verification & Validation Exercises Comments

Numerical Results

Now, we will look at the results of the simulation.

Temperature

A: Steady-State There ad Temperature Type: Temperature Load: *C Time: 1 DIVXY11: SIMP PM	
122 Men 122 Men	
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The temperature is 122 degrees Celsius throughout, which is to be expected.

Total Deformation

In the Outline window, click the deformation solution we created Total Deformation . you should see the following

B Starts Structural Turd Extravation Types Total Extravation Used: w Times: 3 Times: 3 Times: 3	
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The maximum deformation is .002 m, which matches our boundary condition.

Normal Stress

In the Outline window, expand the beam tool folder, and click on Direct Stress. You should see the following

In the Outline window, click the temperature solution we created "Temperature . you should see the following



The stress is constant throughout.

Go to Step 7: Verification & Validation

Go to all ANSYS Learning Modules