T\_EOS\_STD\_1D\_1:

Problem Description

T problem - This example tests the ability of a code to represent heat dissipation. The problem is defined with Dirichlet conditions on the left and right sides of the 100-m long by 10-m thick domain (Figure 1). The initial initial condition is uniform pressure (0.1 MPa). The temperature in the simulation is fixed at 50°C.

Model Set-Up

10 MPa,

100°C

10 MPa,

200°C

1m

100m

Properties

|  |  |  |
| --- | --- | --- |
|  | Matrix | Unit |
| Porosity | 0.2 | [n/a] |
| Permeability | 1.00E-13 | [m^2] |
| Density (rock) | 2500 | [kg/m^3] |
| Density (water) | Variable | [kg/m^3] |
| Viscosity | Variable | [Pa.s] |